1968

FLORIDA STATE BOARD OF HEALTH

1968

ANNUAL REPORT

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Annual Report

State Board of Health

State of Florida

1968

WILSON T. SOWDER, M.D., M.P.H.
STATE HEALTH OFFICER

JACKSONVILLE, FLORIDA

The Honorable Eugene G. Peek, Jr., M.D., President

Florida State Board of Health

Ocala, Florida 32670

Dear Dr. Peek:

I herewith submit the annual report of the Florida State Board of Health for the year ending December 31, 1968.

Sincerely yours,

WILSON T. SOWDER, M.D., M.P.H.

State Health Officer

May 1, 1969

Jacksonville, Florida 32201

His Excellency, Claude R. Kirk, Jr.

Governor of Florida

Tallahassee, Florida 32301

Sir:

I herewith present the report of the Florida State Board of Health for the period of January 1, 1968 to December 31, 1968, inclusive.

Respectfully,

EUGENE G. PEEK, JR., M.D.

President
Florida State Board of Health

May 1, 1969

Ocala, Florida 32670

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May 1, 1969

Ocala, Florida 32670

Members of the

FLORIDA STATE BOARD OF HEALTH

EUGENE G. PEEK, JR., M.D., *President*
Ocala

T. M. CUMBIE, PH.G., *Vice-President*
Quincy

LEO M. WACHTEL, M.D.
Jacksonville

A. B. GALLOWAY, D.D.S.
Fort Walton Beach

WILLIAM J. WEBER, D.V.M.
Leesburg

TENURE OF STATE HEALTH OFFICERS

J. Y. PORTER, M.D., 1889 - 1917

W. H. COX, M.D., 1917 - 1919

R. N. GREENE, M.D., 1919 - 1921

R. C. TURCK, M.D., 1921 - 1925

B. L. ARMS, M.D., 1925 - 1929

HENRY HANSON, M.D., 1929 - 1935

W. A. McPHAUL, M.D., 1935 - 1939

A. B. McCREARY, M.D., 1939 - 1940

W. H. PICKETT, M. D., 1940 - 1942

HENRY HANSON, M. D., 1942 - 1945

W. T. SOWDER, M. D., 1945* -

A. V. HARDY, M. D., 1961 - 1962 (Acting)

W. T. SOWDER, M. D., 1963 -

* On leave October 1961 to December 1962

DIRECTORS OF COUNTY HEALTH DEPARTMENTS
(as of December 31, 1968)

Alachua	John J. Bianco, M.D., M.P.H.
Bay	A. F. Ullman, M.D.
Brevard	T. Paul Haney, M.D., Dr. P.H.
Broward	Paul W. Hughes, M.D., M.P.H.
Collier	Charles F. Bradley, M.D.
Dade	William R. Stinger, M.D., M.P.H. (Acting)
Duval (until September 30)	Patricia C. Cowdery, M.D. (Acting)
Escambia	Harvey Tousignant, M.D., M.P.H.
Hillsborough	John S. Neill, M.D., M.P.H.
Jacksonville (from October 1)	Edward R. Smith, M.D.
Lake	J. Basil Hall, M.D., M.P.H.
Lee	Joseph W. Lawrence, M.D.
Leon	Clifford G. Blitch, M.D.
Manatee	George M. Dame, M.D.
Marion	James B. Stapleton, M.D.
Monroe	Philip H. Isacco, M.D.
Okaloosa	Henry I. Langston, M.D., M.P.H.
Orange	Wilfred N. Sisk, M.D., M.P.H.
Palm Beach	C. L. Brumback, M.D., M.P.H.
Pinellas	John T. Obenschain, M.D., M.P.H.
Polk	William F. Hill, Jr., M.D., M.P.H.
St. Johns	Mason Morris, Jr., M.D.
Santa Rosa	A.E. Harbeson, M.D.
Sarasota	David L. Crane, M.D., M.P.H.
Seminole	Frank Leone, M.D.
Volusia	Hubert U. King, M.D.
Baker - Nassau	B. F. Woolsey, M.D.
Flagler - Putnam	J. Culpepper Brooks, M.D.
Gadsden - Liberty	Howard G. Krieger, M.D.
Madison - Taylor	Luther A. Brendle, M.D., M.P.H.
Osceola - Indian River	C. C. Flood, M.D., M.P.H.
Pasco - Sumter	John L. Ingham, M.D.
Bradford - Clay - Union	A. Y. Covington, M.D., M.P.H.
Calhoun - Jackson - Gulf	Terry Bird, M.D., M.P.H.
Charlotte - DeSoto - Hardee	Francis R. Meyers, M.D.
Citrus - Hernando - Levy	Stanley A. Hirchfield, M.D.
Columbia - Hamilton - Gilchrist	F. Barton Wells, M.D.
Glades - Hendry - Highlands	J. Dillard Workman, M.D., M.P.H.
Holmes - Walton - Washington	William G. Simpson, M.D., M.P.H.
Jefferson - Wakulla - Franklin	Patrick H. Smith, M.D.
Martin - Okeechobee - St. Lucie	Neill D. Miller, M.D.
Suwannee - Dixie - Lafayette	Owen R. Hunt, M.D.

OFFICIAL STAFF FLORIDA STATE BOARD OF HEALTH
(as of December 31, 1968)

State Health Officer	Wilson T. Sowder, M.D., M.P.H.
Deputy State Health Officer	Malcolm J. Ford, M.D., M.P.H.
Planning	Wade N. Stephens, M.D., M.P.H. (Acting)
Operations	
Epidemiology Research Center	James O.Bond, M.D.,M.P.H.
Division of Health Education	G. Floyd Baker, M.P.H.
Librarian	Carolyn Gray Hall, B.A.,M.L.S.
Division of Personnel	Miles T. Dean, M.S.
Division of Public Health Nursing	Enid Mathison, R.N.,M.P.H.
Bureau of Adult Health and Chronic Diseases	J.E. Fulghum, M.D.
Bureau of Dental Health	
Bureau of Entomology	John A. Mulrennan,B.S.A.
Entomological Research Center	Maurice W. Provost, Ph.D.
West Florida Arthropod Research Center	Andrew J. Rogers, Ph.D.
Bureau of Finance and Accounts	Fred B. Ragland, B.S.
Assistant Director	Paul R. Tidwell, B.B.A.
Purchasing Agent	Frank E. Craft, B.S.B.A.
Bureau of Health Facilities and Services	Walter E. Deacon, M.D., M.P.H.
Assistant Director	Warren M. Kirk, M.D.
Bureau of Laboratories	Nathan J. Schneider, Ph.D.
Assistant Director	Warren R. Hoffert, Ph.D., M.P.H.
Miami Regional Laboratory	Robert A. Graves, M.S., M.P.H.
Orlando Regional Laboratory	Max T. Trainer, M.S.
Pensacola Regional Laboratory	Emory D. Lord, M.S.
Tallahassee Regional Laboratory	E. Ann Roberts, B.S.
Tampa Regional Laboratory	E. Charles Hartwig, D.S.C.
West Palm Beach Regional Laboratory	Lorraine Carson
Bureau of Local Health Services	
Deputy State Health Officer	Malcolm J. Ford, M.D., M.P.H.
Division of Nutrition	Mildred Kaufman, B.S., M.S.
Division of Sanitation	A. W. Morrison, Jr., R.S.
Bureau of Maternal and Child Health	
Bureau of Preventable Diseases	C. L. Nayfield, M.D., M.P.H.
Associate Director	E. Charlton Prather, M.D., M.P.H.
Division of Epidemiology	E. Charlton Prather, M.D., M.P.H.
Division of Radiological Health	Edwin G. Williams, M.D.
Division of Tuberculosis Control	Dwight Wharton, M.D.
Division of Veterinary Public Health	James B. Nichols, D.V.M.
Bureau of Research	Howard W. Carter, M.D., M.P.H.
Bureau of Sanitary Engineering	Sidney A. Berkowitz, M.S. Eng.
Assistant Director	George T. Lohmeyer, M.S. Eng.
Division of Industrial Waste	Nick Mastro, M.P.H.
Division of Waste Water	Ralph H. Baker, Jr., M.S.S.E.
Division of Water Supply	John B. Miller, M.P.H.
Bureau of Vital Statistics	Everett H. Williams, Jr., M.S. Hyg.
Division of Data Processing	Harold F. Goodwin
Division of Public Health Statistics	Oliver H. Boorde, M.P.H.
Division of Vital Records	Charles H. Carter

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OFFICE OF STATE HEALTH OFFICER

WILSON T. SOWDER, M.D., M.P.H.
State Health Officer

The successes of past years continue to change the present day face of public health. Since its inception, the State Board of Health (SBH) has waged and won battles against such epidemic enemies as malaria and yellow fever, and has fought tuberculosis, hookworm and many other diseases with great success.

Last year we saw the effective end of poliomyelitis as an epidemic threat in Florida. This year we were able to point our forces toward diseases that once were considered relatively minor. Measles is one of these, and its incidence for 1968 was the lowest ever recorded in Florida. The 534 cases reported for the year were about one quarter the number recorded in 1967 and one eighth the number in 1966. What probably will be Florida's last measles (rubeola) epidemic was occurring in Jacksonville at the end of the year.

Whooping cough is another serious though relatively "minor" disease, in which success was witnessed. Only 98 cases were recorded in 1968 as compared to 271 in 1967.

Tetanus, another of the totally preventable diseases, is finally yielding to health efforts. The eleven cases of 1968 presented Florida with a record low year. Diphtheria is not faring so well. Unfortunately, following last year's record all time low, 1968 was an "epidemic year." Sixteen cases of this totally preventable disease were reported.

There were over 29,000 cases of influenza in 1968. More than 18,000 of these occurred during the first three months. Hong Kong flu was identified in June and spread to all parts of the world, including Florida where some 11,000 cases occurred between October and December.

Malaria, a disease from out of the past, began what looks like a come - back this year. Specimens submitted to State Board of Health laboratories indicated a three fold increase of malaria — with all 25 cases occurring in servicemen returning from Vietnam. The danger, with even as few as 25 cases, lies in the fact that mosquitoes capable of spreading the disease throughout Florida still exist in this state. Compounding the mosquito problem is the fact that the *Aedes aegypti* project was eradicated before the mosquito. This project, designed to eliminate the "yellow fever mosquito" fell victim to a $6 billion cut back in federal expenditures. Of the Florida project, funded for $3.3 million, only a small research project remained.

Following the trend begun last year, Florida showed a significant decrease of 17.4 per cent in reported cases of primary and secondary syphilis this year. This new and heartening trend reflects the effectiveness of the health department-private physician cooperative work against this disease, but it is offset by an alarming state-wide growth in epidemic gonorrhea. The estimated number of gonorrhea cases treated during fiscal year 1968 in Florida totals of 50,000. It is apparent that there is a gonorrhea epidemic in the entire nation, as well as Florida, and there is need for stepped-up planning and major increase in financing for gonorrhea control on the federal, state and local levels.

An equally alarming increase in disease is that of hepatitis. Infectious hepatitis sharply rose this year: 1,149 cases reported as compared to 639 in 1967. Even greater numbers of cases are likely to occur next year. While the number of serum hepatitis cases are not so large — 128 cases were reported this year — the circumstances of this disease do have alarming implications. While the extent of self-administered and illicit drug usage cannot be easily assessed, it is felt that this is playing an ever larger and most unfortunate role in the increase of serum hepatitis.

An increase in wild animal rabies was also witnessed this year — 112 cases compared to 82 for 1967. This change is accounted for largely by an increase in raccoon rabies throughout the state. This is a situation that will be watched closely by the State Board of Health.

* * *

Many of the communicable diseases seem to be under control, but new problems have arisen to take their places. Chronic diseases have now become important causes of disability and death. We do not know how to prevent many of them, but one that can be prevented, is malnutrition. Its prevention is difficult, because it is hard to change peoples' eating habits even when a balanced diet is available. Plans were laid during 1968 for a scientific study of malnutrition in Florida, which, it is hoped, will provide better methods of attacking this difficult and nebulous problem.

Heart, cancer, stroke, diabetes and the other chronic diseases continued to assume increasing importance as we move from the

"fire fighting" era of reacting to epidemics into this modern age of seeking out and preventing or controlling the more difficult chronic diseases. Over 65 per cent of all deaths in Florida are now caused by some form of vascular disease, with cancer the second leading cause of death in this state. Much work is being done but there is need for much more.

Legal enforcement of health rules and regulations is also assuming increasing importance as people continue to flood into the state, and as our social environment becomes more and more complex. Enforcement is often an unpleasant task for an agency concerned with health and well being, but it is a vital task where the elderly, the innocent, or the unsuspecting public is concerned. Assuring the elderly and the public of safe and medically adequate health facilities and nursing homes is an example. This is one of the areas in which we are having to rely on stronger legal enforcement when informed persuasion fails. Pollution hazardous to health is another area.

The agency was given the responsibility for the new clinical laboratory law, enacted in 1967. This requires the registering of laboratories and the licensing of laboratory personnel. This year 467 laboratories were registered, with 3,626 personnel licensed. In addition to this, our laboratories performed over 3,000,000 examinations, an increase of 6.1 per cent over last year.

On the tragic side, the agency lost — first through retirement, then by death — the irreplaceable services of its internationally known sanitary engineering pioneer, David B. Lee.

However, there are two areas in which this agency was extremely fortunate this year. The first was the completion of the $1 million office addition in Jacksonville. The occupancy of this four story building enabled the agency to bring together, in one location, activities which had been occupying leased space in other sections of the city. The other area is in recruitment of county health directors. At the year's end every position was filled. Of these 41 physicians, nine are diplomates of the American Board of Preventive Medicine; one possesses the degree of doctor of public health; and 18 possess masters of public health degrees. It must be reassuring to the people of Florida to have personnel of this quality in the forefront of Florida public health work.

EMPLOYEES HEALTH SERVICE

Work volume continued quite high during 1968, as evidenced by the number of first aid or emergency care treatments rendered — 3534, or an average of about 300 per month. Multiphasic screening examinations were completed on 261 employees, and E. Charlton Prather, M. D., was assisted in his annual program of immunizations against influenza for personnel and their families.

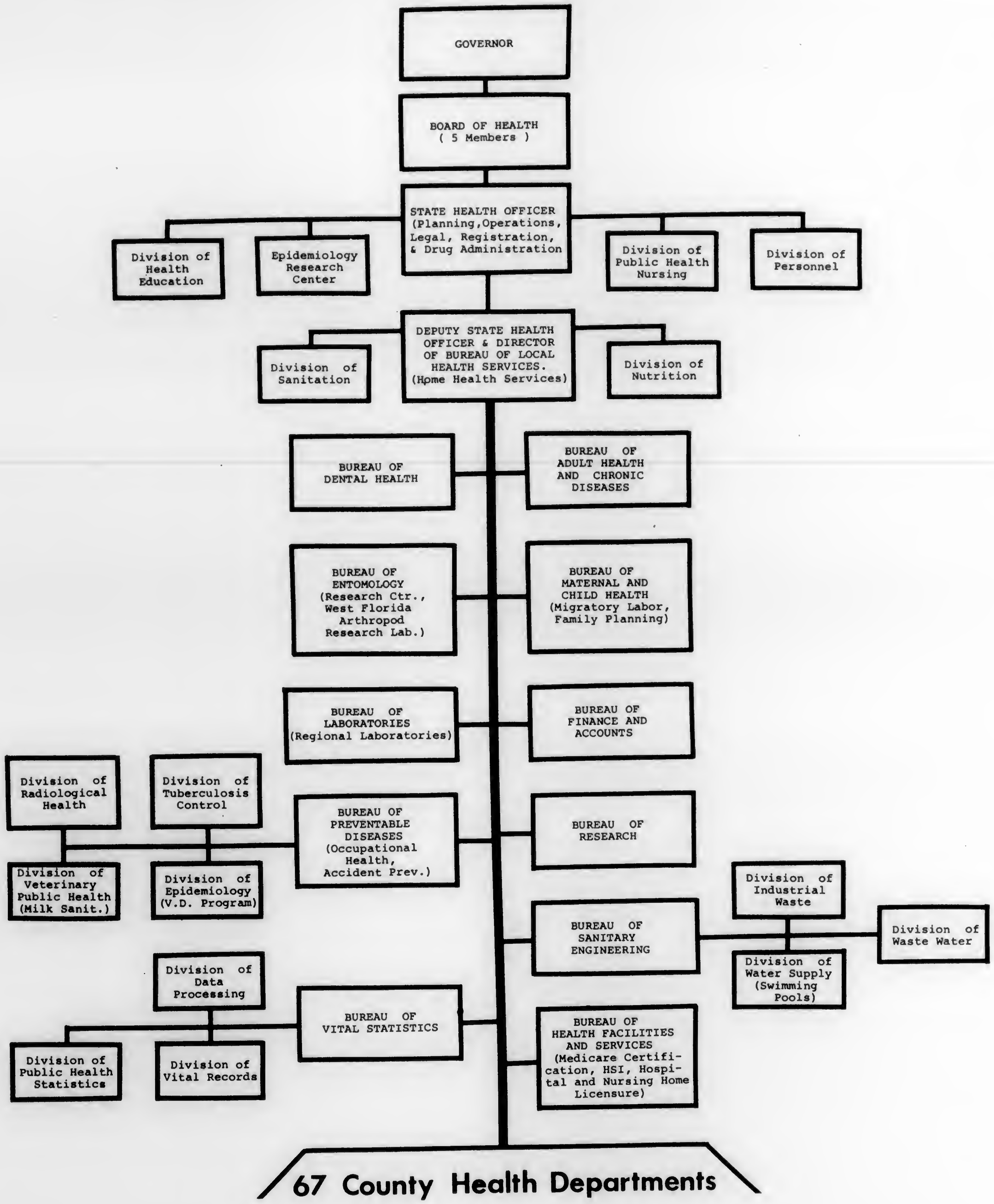
The tabulation below summarizes this work — except for the influenza immunizations:

Occupational Visits	110
Non-Occupational Visits	3262
Dependent Immunizations	158
TOTAL	3534
Multiphasic Screening Tests	261

A survey of the employees by questionnaire was conducted during the latter part of the year to determine as nearly as possible, how they regarded this facility, and to what extent it was used. The answers returned indicated overwhelming approval, and extensive use of the services. Some of the suggestions offered are being considered in our efforts to improve the program.

INTERNAL AUDITING

The internal auditor plans, directs and coordinates the internal audit program of the State Board of Health (SBH), including the 67 county health departments (CHD), and performs such other staff duties as may be assigned. Since October 21, 1968, he has had two permanent assistants. The internal auditor conducts post audits of the financial transactions of the CHDs to determine that fiscal matters are in accord with state and local laws and the policies of the SBH. Audit reports of 49 CHDs were released in 1968. The accounts of four other CHDs were audited during 1968 and audit reports were in process at the end of the year. Audit work papers were prepared on the accounts of four additional CHDs.


GOVERNOR
BOARD OF HEALTH (5 Members)
STATE HEALTH OFFICER (Planning,Operations, Legal, Registration, & Drug Administration
Division of Health Education
Epidemiology Research Center
Division of Public Health Nursing
Division of Personnel
DEPUTY STATE HEALTH OFFICER & DIRECTOR OF BUREAU OF LOCAL HEALTH SERVICES. (Home Health Services)
Division of Sanitation
Division of Nutrition
BUREAU OF DENTAL HEALTH
BUREAU OF ADULT HEALTH AND CHRONIC DISEASES
BUREAU OF ENTOMOLOGY (Research Ctr., West Florida Arthropod Research Lab.)
BUREAU OF MATERNAL AND CHILD HEALTH (Migratory Labor, Family Planning)
BUREAU OF LABORATORIES (Regional Laboratories)
BUREAU OF FINANCE AND ACCOUNTS
Division of Radiological Health
Division of Tuberculosis Control
BUREAU OF PREVENTABLE DISEASES (Occupational Health, Accident Prev.)
BUREAU OF RESEARCH
Division of Veterinary Public Health (Milk Sanit.)
Division of Epidemiology (V.D. Program)
Division of Industrial Waste
BUREAU OF SANITARY ENGINEERING
Division of Waste Water
Division of Water Supply (Swimming Pools)
Division of Data Processing
BUREAU OF VITAL STATISTICS
BUREAU OF HEALTH FACILITIES AND SERVICES (Medicare Certification, HSI, Hospital and Nursing Home Licensure)
Division of Public Health Statistics
Division of Vital Records
67 County Health Departments

Organizational Chart of the Florida State Board of Health

OCT/68

LEGAL SECTION

The Office of General Counsel holds the responsibilities of legal enforcement of health rules and laws; legal counselling of the Board and staff; legal assistance in drafting laws, regulations and documents; and responding to public inquiries that are legal in nature.

The Office was reorganized in July, 1968, and presently consists of three full-time attorneys and one part-time attorney-consultant.

Its method of handling of enforcement duties is to attempt resolution short of litigation where advantageous; to resort to administrative litigation when a problem cannot be resolved informally; and to litigate in court only when administrative action is unavailing.

NEWS, PUBLIC RELATIONS AND PUBLICATIONS

A total of 38 statewide news releases were sent to all communication media in Florida. Thirteen other stories were released to newspapers of specific areas and 96 news requests were filled with wire services, television, radio or newspapers. Other informational services included seven television shows on health subjects; 21 health information and historical columns distributed to weekly newspapers; 65 health fillers were sent to daily and weekly newspapers; and over 11,000 news clippings relating to State Board of Health and County Health Departments were procured and disseminated to affected persons. A story on the 25th anniversary of the Polk County Health Department was researched and published in several newspapers of the county.

The staff also edited *Florida Trends in Public Health*, gave assistance on the preparation of the Manasota-88 Report, and helped prepare the State Board of Health's *1967 Annual Report.*

Florida Health Notes was transferred in January from the Division of Health Education to the staff of the State Health Officer. Topics for the 12 issues of 1968 were: immunizations, the first hospital of the United States at St. Augustine, health examinations, radiation and atomic energy, geriatrics, obesity, rodent control, juvenile diabetes, maternal and infant care, venereal disease control, the role of the State Board of Health in protecting the consumer, and a simplified annual report. Circulation was approximately 22,000 copies a month.

PLANNING

G. FOARD McGINNES, M.D.
Assistant State Health Officer
(to November)
WADE N. STEPHENS, M.D.
Acting Director (from November)

Planning is one of the many responsibilities of the State Health Officer. The Office of Planning assists him.

Major functions of the office are the compilation of program plans and reports required by the federal government and the state, administrative coordination and plan review of projects, contracts and agreements, periodic review of ongoing programs and their administration and the collection of specific information requested by the State Health Officer.

Plans were prepared for the U.S. Public Health Service and the Children's Bureau as a requisite for annual renewal of federal funding. The first steps were taken in the formulation of plans and information to be used by the Planning and Budget Commission and its Office of Comprehensive Health Planning in developing the annual State Development Program now required by state law.

During the year 30 projects, 10 contracts and one agreement, all federally financed, were in force (list on next page). Four projects terminated and one new agreement went into effect.

The Vaccination Assistance and Venereal Disease Casefinding Projects and the Division of Veterinary Public Health were reviewed and recommendations made for the improvement of their programs.

The Bureau of Maternal and Child Health was requested to include in this *Annual Report* a new table based on one which has been of value in evaluating the progress of the Family Planning Program (Table 28 page 222). Modifications of the Dryfuss-Polgar formula, from which is derived the index used in the family planning tables, have been applied to other aspects of the Maternal and Child Health program. It is hoped that similar indices can be developed for other programs.

GRANTS-IN-AID, PROJECTS, CONTRACTS AND AGREEMENTS
FLORIDA, 1968

Description of Program	Area	Grantor	Amount
		U. S. PUBLIC HEALTH SERVICE	
Health Services for Migrant Farm Workers	Statewide	Bureau of State Services	$ 594,307
Health Services for Migrant Farm Workers	Dade County	Bureau of State Services	116,868
Health Services for Migrant Farm Workers	Palm Beach County	Bureau of State Services	197,413
Medical Care for American Indians	Broward, Dade, Glades Hendry & Highlands Counties	Division of Indian Health	173,485
Medical Care For Cuban Refugees	Dade County	Bureau of State Services	1,650,000
Health counseling, referral & follow-up for the aged	Dade County	Bureau of State Services	46,269*
Medical Self Help Training	Statewide	Bureau of State Services	16,235
Air Pollution Control	Hillsborough County	National Center for Air Pollution Control	56,250
Air Pollution Control	Manatee County	National Center for Air Pollution Control	29,118
Air Pollution Control	Palm Beach County	National Center for Air Pollution Control	51,787
Solid Waste Disposal Planning	Statewide	National Center for Urban & Industrial Health	26,418
Research on Effects of Pesticides in humans	South Florida	National Communicable Disease Center	453,541
Eradication of *aedes aegypti* mosquitoes	Statewide	National Communicable Disease Center	3,366,107***
Control of spread of venereal disease	Statewide	National Communicable Disease Center	255,085
Training federal VD investigators	Statewide	National Communicable Disease Center	192,000
Control of venereal diseases among migrant farm workers	Statewide	National Communicable Disease Center	26,355**
Intensified tuberculosis control	Statewide	National Communicable Disease Center	787,206
Epidemiology of unclassified mycobacterial infections	Statewide	National Communicable Disease Center	45,950
Vaccination Assistance through birth certificate follow-up	Statewide	National Communicable Disease Center	$ 286,543
General Research Support	Statewide	National Institutes of Health	198,674
Arbovirus Research	Statewide	National Institutes of Health	176,904
Research for Mosquito Control	Statewide	National Institutes of Health	277,316
Smoking and Health Education	Statewide	Comprehensive Health Planning	18,090
Early detection of cervical cancer	Dade County	Comprehensive Health Planning	31,457
Early detection of oral cancer	Statewide	Bureau of Health Manpower	23,130**
Apprenticeship Training for Medical & Dental Students	Statewide	Bureau of Health Manpower	5,790

GRANTS-IN-AID, PROJECTS, CONTRACTS AND AGREEMENTS, (Continued) FLORIDA, 1968

Description of Program	Area	Grantor	Amount
Medical Library Resource Support	SBH Library	National Library of Medicine	6,873
Research on blind mosquitoes	Statewide	National Institute of Allergy & Infectious Disease	6,607
Research on radionuclides in milk	Statewide	National Center for Radiological Health	28,831****
Clinic services for mentally retarded children	Hillsborough County	U. S. CHILDREN'S BUREAU	57,553
Clinic services for mentally retarded children	Dade County		183,828
High risk maternity and infant medical care	14 northeast counties		535,000
Health services for low income family children	Dade County		700,000
High risk maternity and infant medical care	Dade County		1,283,000
High risk maternity and infant medical care	Broward County		320,000
High risk maternity and infant medical care	Orange County		300,000
High risk maternity and infant medical care	Palm Beach County		450,000
Medicare certification services	Statewide	U. S. SOCIAL SECURITY ADMINISTRATION	211,764
Research on dog fly control	Northwest Florida	U. S. DEPARTMENT OF AGRICULTURE	25,000
Protection and safety with radioactive isotopes	Statewide	U. S. ATOMIC ENERGY COMMISSION	Reasonable cost
Hypertension Screening Program	Washington, Walton & Holmes Counties	FLORIDA ADVISORY COUNCIL FOR REGIONAL MEDICAL PROGRAMS	80,260
Water Pollution Control	Statewide	U. S. DEPARTMENT OF INTERIOR	252,300
			$13,543,314+

*Terminated 5/31/68 **Terminated 6/30/68 ***Terminated 9/30/68 ****Terminated 3/31/68

ACTIVITIES OF THE BOARD

February 13 – Jacksonville

1. Meeting was called but for lack of quorum it was cancelled.

February 18 – Jacksonville

1. Re-elected Eugene G. Peek, Jr., M.D., president, and Mr. T. M. Cumbie, vice president, of State Board of Health (SBH).
2. Approved appointment Walter E. Deacon, M.D., director of the Bureau of Health Facilities and Services, who would be available June 1, 1968.
3. Transferred Chester Nayfield, M.D., acting director of the Bureau of Health Facilities and Services, to his regular position as director, Bureau of Preventable Diseases.
4. Discussed the licensure status of Magnolia Towers, Home for Aged, Orlando, Florida.
5. Approved the appointment of Sidney Berkowitz, director of the Bureau of Sanitary Engineering.
6. Approved rules and regulations for the Homes for the Aged.
7. Approved leave of absence for six months for Vincent Patton from his position as director of the Division of Industrial Waste.
8. Approved leave of absence for six months for K. K. Huffstutler, regional engineer, with understanding he be allowed to return to any suitable position in the Bureau of Sanitary Engineering that might be open.
9. Approved leave of absence for 30 days for Mrs. Anita B. DeLaMare, secretary to the director of the Division of Industrial Waste, Bureau of Sanitary Engineering.
10. Approved the appointment of Nick Mastro as acting director of the Division of Industrial Waste, Bureau of Sanitary Engineering.
11. Approved nineteen postgraduate scholarships for 1968-69.

12. Discussed the ambulance control program and directed that regulations be drawn up and sent to them. Also asked that information regarding the program in North Carolina be sent them.

13. Discussed parathion deaths and possible control measures with members of the staff. Advised staff to draft proposed bills as necessary and present them.

14. Held a hearing on proposed regulations Clinical Laboratories Act. Referred matter to Advisory Committee for study and brought up before this body at later date.

15. Ralph Poe, D.V.M., and Fred J. Ackel, D.D.S., discussed visit with Robert Roesch, director of the Comprehensive Health Planning Program of the Governor's Office. Suggested that a special invitation be given Mr. Roesch to attend SBH meetings. Agreed to by all members.

16. Approved policy regarding payment of fees to dentists for services purchased in accordance with that of the Florida State Dental Society.

17. Heard request by Leo M. Wachtel, M.D., that rules for the regulation of laser beam equipment be sought by the SBH so that this group consider the matter.

May 11 – Bal Harbour

1. Discussed proposed regulations Clinical Laboratory Act and approved certain ones with recommendations by the Advisory Committee for amendments.

2. Directed the State Health Officer to ask the Advisory Committee on the Clinical Laboratory Act to appoint an Ad Hoc Committee to study the question of education for those qualifying under this Act.

3. Approved regulations for the Implied Consent Law.

4. Discussed proposed regulations for Homes for Aged (HUD 202 Projects) and postponed them for further study.

5. Discussed the relationship of new consolidated health department, Jacksonville and Duval County, to the SBH.

6. Discussed resignation of dental director, Delmar Miller, D.D.S., and approved the employment of Derl G. Stallard, D.D.S., as consultant until director could be found.

7. Approved appointment Representative Ted Alvarez, Jr., and Representative Richard Hodes as members of Advisory Committee for Hospital Services for the Indigent.

8. Heard a report by State Health Officer on administrative actions and problems; preparation of proposed budget for biennium 1969-71; Dr. E. Henry King's, director of Bureau of Maternal and Child Health, request for transfer; Dr. Edward Byrne's resignation as director, Alachua County Health Department (CHD); employment of attorneys for legal section; legislative sub-committee meetings; proposed legislation by SBH; vacation plans for State Health Officer; and proposed study by Arthur Young and Company, Washington, D.C., regarding Data Processing Services.

May 12 – Bal Harbour

1. Discussed actions by House of Delegates of Florida Medical Association regarding public health programs.

July 14 – Jacksonville

1. Approved appointment Mr. Mastro, director, Division of Industrial Waste, Bureau of Sanitary Engineering.

2. Heard discussions by staff and CHD representatives regarding contract arrangement for one year with the new Consolidated Government (Jacksonville) for health services and approved it in principle to be considered at next meeting of group.

3. Discussed revision of regulations Homes for the Aged with interested parties and postponed final action and requested these be circulated for further comment and brought before the Board at next meeting.

4. Approved policy per diem $17.00 both in state and out-of-state for travel by SBH and CHD employees.

5. Approved appointment D. E. Cooperrider, D.V.M., as member of Public Health Veterinary Advisory Committee, replacing William L. Sippel, D.V.M.

6. Discussed Legislative Auditor's report for the Orange CHD. Postponed action with regard to it until word received from Orange County Commissioners.

7. Approved proposed regulation regarding midwifery.

8. Heard a report by J. N. Conger regarding proposed legislation by SBH.

9. Approved seeking legislation to make available to veterinarians two scholarships limited to the study of wild life diseases.

10. Confirmed the recipients of dental scholarships approved by State Health Officer and Dr. Ackel.

11. Approved proposed Legislative Budget for 1969-71 biennium with exception of one item concerning a salary increase for State Health Officer.

12. Approved Maurice W. Provost's, Ph.D., director, Entomological Research Center, request for foreign travel.

13. Approved the dismissal of legal action regarding the complaint by F. H. Horrigan against Charles Cron as no provable violation exists pursuant to provisions of Chapter 468.131 (2) F.S.

August 18 — Jacksonville

1. Approved amendments to Chapter 170D-3, Homes for the Aged, regulations.

2. Discussed letter from chairman of the Board of County Commissioners of Orange County concerning its investigation of certain phases of the report of the Legislative Auditor for the Orange CHD. Directed State Health Officer to write County Health Director, Wilfred Sisk, M.D., regarding certain deficiencies in the operation of the Orange CHD as pointed out by the Legislative Auditor's Report.

3. Discussed licensure problem in regard to Osceola Inn, Clearwater, and denied the request for an exception in order that this Home for the Aged be licensed.

4. Approved a one year contract, effective October 1, 1968, and negotiable annually, with the new Consolidated Government of the City of Jacksonville, and the SBH services.

5. Discussed a proposal by Nathan J. Schneider, Ph.D., regarding extension of exemption Laboratory Personnel Licensure from December 31, 1967 to December 31, 1968 under Clinical Laboratory Law, Chapter 483, and took no action but suggested an attempt be made to get the law modified in the next Legislature.

6. Approved in principle a draft of a scholarship bill for veterinarians to be brought before Board at later date.

7. Approved an item to be included in the Legislative Budget for the biennium 1969-71 for the salary of $33,990 for the State Health Officer.

8. Approved the reappointment of Phillip Hampton, M.D., and Frank Kelly to the Advisory Committee for Hospital Services for the Indigent.

9. Heard a status report of legal cases by Robert Eisenberg.

10. Heard a report on public relations activities of State Board of Health by Mark Austin.

11. Approved the holding in abeyance for further study the amendment passed at the last meeting on Chapter 170E-6, Midwifery.

November 24 — Jacksonville

1. Discussed resignation of Dr. Ackel, dental member of the Board,

to accept appointment on the Racing Commission and the appointment of A.B. Galloway, D.D.S., to fill his unexpired term.

2. Report by Dr. Poe, veterinarian and member of the Board, regarding his election as County Commissioner of Orange County and his resignation from the Board.

3. Discussed the status of Mecca Convalescent Home and its licensure and directed that the staff of the Bureau of Health Facilities and Services inspect the Mecca Convalescent Home within the next week to see if all requirements are met for a conditional license. The Board further asked that all the deficiencies be corrected within one year.

4. Discussed and approved the trial use of aerosol spray for some of the population of Hillsborough County by the University of Florida, SBH, and the Hillsborough CHD.

5. Discussed and approved proposed legislation to be sponsored by the SBH.

6. Heard a discussion by Dr. Poe regarding a bill for the regulation of pet shops and asked that a draft of such a bill be made and presented to the Board at its next meeting.

7. Approved revisions in the rules on fitting and selling of hearing aids.

8. Approved revisions of the regulations for vital statistics.

9. Approved the appointment of Charles Manthey, M.D., on the Advisory. Committee for the Hospital Service for the Indigent Program.

10. Approved the appointment of Don Laurent as a member of the Advisory Committee for Clinical Laboratory Program.

11. Adopted a resolution regarding the estate of Delores Ruthenberg whereby certain proceeds of the estate will be collected by the SBH for public health work.

TRAINING COORDINATION

JEROME N. CONGER, M.P.H.
Chief Health Program Specialist

Activities of the training office during 1968 included the Academic Training Program for employees, administration of the remaining work in the Medical Scholarship Program, Summer Student Training, the Orientation Program for new employees and other training functions of a coordinating nature.

Work associated with the Medical Scholarship Program continued to decline as the only scholarship now awarded each year is for the study of osteopathic medicine. Eleven recipients who received scholarships in former years continued to receive scholarship payments. Activity continued relative to those individuals who had received scholarship awards in previous years and who have not yet discharged their remaining obligation to the state. Seven physicians discharged their obligations to the state during 1968 by completing scheduled payments, reimbursing the state in full for the value of the scholarship grant, or by entering practice in an area of approved need.

Five dental scholarships were awarded in 1968. These scholarships are administered by the Bureau of Dental Health and each scholarship is granted upon recommendation of the State Board of Dental Examiners. One osteopathic scholarship was awarded by the State Board of Health (SBH), upon recommendation of the State Board of Osteopathic Medical Examiners.

The SBH Academic Scholarship Program for employees resulted in 20 SBH employees in professional categories being awarded scholarships in 1968, to continue their professional education. These training awards are available to career employees showing high promise for positions of future leadership in Florida's public health program. Unlike the previous year, when the SBH experienced some difficulty in finding an adequate number of employees interested in further training, more applications were received than there were scholarships available. It is anticipated that this trend will continue. Additional scholarships will need to be provided in coming years, if the SBH is to meet the needs for professional leadership in a growing and more sophisticated public health program in Florida.

Summer student training activities resulted in the employment and training of 66 well qualified students in the central office, regional laboratories and county health departments. Eligible students for this program were required to demonstrate a combination of economic need and future potential for health careers. It is felt that this program continued to provide practical training in the sciences and public health for qualified Florida students and will result, in future years, in more Florida health manpower and a better understanding of health needs and activities in our state.

Three orientation programs were conducted for 167 employees in 1968. These employees received a thorough orientation on the statewide public health program and their role and responsibility in the effective and efficient conduct of this program. As a result of a study of orientation needs, the program was modified during 1968 to increase the number of employees attending. The length of each orientation program was also reduced. In addition to the three major programs, one experimental session — relying heavily on audio-visual aids — was conducted in a county health department and a similar one-day program, using newly developed audio-visual materials, was presented to the summer students in training at the central office in Jacksonville.

Other activities of the Training Office included the coordination and disbursement of training information, consultation and participation on in-service training programs conducted during the year, and the study and planning for training programs for SBH clerical and management personnel.

MEDICAL
Scholarships Awarded in 1968:

*John Cleveland Mayes	Pinellas

Continuing Scholarships Awarded Prior to 1968:

Awarded 1965:
- Louis B. St. Petery
- Julia Carolyn Revell
- Monica Anne Minyard (Maternity Leave 1966-67)
- George L. Sanders
- *Donald L. McBath

Awarded 1966:
- Alvin Bryant
- James Thomas Dawsey
- **Jack Earle Maniscalco
- ***Charles Wilson Moore, Jr.
- Elliott Craig Raby
- *David Douglas Asmussen

Awarded 1967:
- *Thomas E. Abbey (recipient canceled 9/5/68 - repaid) still in school

*Osteopathic scholarship
**Recipient canceled scholarship 8/23/68 — still in school
***Withdrew from school 8/68

DENTAL
Scholarships Awarded in 1968:

Walter W. Aichel	Dade
Dale K. Christensen	Orange
Thomas E. McRae	Duval
Clifford B. Ward	Manatee
Robert W. Ward	Bay

Awarded 1965:
- Melvin C. Beard II
- Albert J. Endruschat
- Richard L. Finkbeiner
- Nathan A. Graddy
- Leonard W. Peterson
- David W. Rawson
- John L. Ricks, Jr
- Drew H. Turner, Jr.
- Richard H. Waldbart, Jr.
- John W. Shannon

Awarded 1966:
- William O. Bolton, Jr.
- Douglas W. Booher
- Harvey I. Cohen
- H. J. Emmons
- Alan J. Frank
- Robert E. Hirschfield
- Owen B. Lovejoy
- James Moore, Jr.
- Conrad C. Theiss, Jr.

- Roger B. Blair, III
- Terry C. Blanks
- Harold E. Howard, Jr.
- Wayne S. Maris
- George A. Jackson, II

PUBLIC HEALTH PERSONNEL

William M. Bostick	Sanitary Engineer III	SBH
John L. Buckingham, M.D.	Physician III	SBH
Peter Paul Baljet	Sanitary Engineer II	Dade
David L. Cusic	Health Field Worker II	SBH
Jean Dolan	PHN Supervisor I	Dade
Graham M. Hairr	PH Physicist IV	SBH
Harry G. Hall	Assistant San. Director	Pinellas
Roger Alvin Heupel	Sanitarian	Hillsborough
Roger I. Hope	Health Field Worker III	SBH
Charles T. Kekich, D.D.S.	Clinical Dentist	Highlands
Vernon E. Keys	Sanitation Consultant	SBH
Charles Everett Lattimer	Sanitarian	Pinellas
*Dolores McAdoo	Assistant County Nursing Director I	Sarasota
Vera Geraldine McRae	Nutritionist Consultant II	SBH
Linda Gail Ray	Public Health Nurse	Broward
John C. Reagan	Health Field Worker III	SBH
Joseph Shumlansky	Senior Sanitarian	Brevard
Sam T. Simpson, M.D.	Public Health Physician III	Brevard
Fred R. Usher, Jr.	Special Agent	SBH
Elizabeth C. Yawn	Assistant Director	Miami Reg. Lab.

*Resigned after one quarter, scholarship discontinued

EPIDEMIOLOGY RESEARCH CENTER

JAMES O. BOND, M.D., M.P.H.
Director

The Encephalitis Research Center was renamed the "Epidemiology Research Center" during 1968. The name change reflected a broadened area of interest including viral diseases other than those caused by arboviruses. Special studies of influenza, mumps, measles, and Tamiami virus characterized these extended interests.

The principal financial support for the center, however, remained with the National Institutes of Health grant entitled "Arbovirus Epidemiology in Florida." These investigations, therefore, received first priority. The center's staff assisted in the investigation of the first recognized human infection with Venezuelan encephalitis (VE) on the North American continent which occurred in Homestead, Florida, 250 miles south of the Tampa Bay area. Careful surveillance in the Tampa Bay area suggested that there was no evidence of VE activity in central Florida during 1968.

California encephalitis (CE) viruses are still the most prevalent, and, therefore, most investigated of the arboviruses in the Tampa Bay area. Fifty-five recoveries were made during 1968, all from mosquitoes. Forty-six of these were from *Aedes infirmatus*, eight from *Aedes atlanticus*, and one *Anopheles crucians*. Biological studies strongly implicated the cotton rat as the vertebrate reservoir for CE viruses in the Tampa Bay area. Marsh rabbits were also shown susceptible to experimental infection in the laboratory. For the third consecutive year we again failed to demonstrate transmission in the laboratory using *Aedes infirmatus* mosquitoes and Keystone virus. A plaque reduction neutralization test in VERO cell culture was perfected by the laboratory and considerably improved the serologic tools available for study of Keystone virus. The immunodiffusion technique for identifying sub-strains of CE virus was evaluated during 1968. The complement fixation (CF) test remains the cheapest, quickest, and simplest identification procedure.

For the sixth successive year there was no evidence of St. Louis encephalitis (SLE) activity either in humans, vertebrates, or arthropods. Physicians and hospitals in the area referred 589 human cases for viral diagnostic studies. None gave evidence of recent arbovirus infection. Sentinel chickens and pauperized dove flocks were again found negative for SLE serologic activity; 31,074 *Culex nigripalpus* mosquitoes were tested and found negative for SLE virus. Follow-up studies of surviving SLE patients from the 1959, 1961, and 1962 epidemics were completed in 1968. Survivors maintained hemagglutination - inhibition (HI) and serum neutralizing (SN) antibodies, but most had lost their CF antibody by the fourth or fifth year. Many of the survivors had neuroasthenic complaints which differed from those of their matched controls and there was some minimal difference in their ability to perform finely coordinated movements of the hand and postural balance muscles.

The newly identified Tamiami viruses from cotton rats were successfully grown on VERO cell culture and a plaque reduction technique developed for assaying serum neutralizing antibodies. Laboratory infected rodents were found to produce CF antibody titers. It was concluded the most likely method of transmission between rodents was via virus-contaminated urine. Again there was no evidence of human infection with Tamiami viruses. Since Tamiami virus is a member of the larger hemorrhagic fever group which produces serious illness in Central and South America, further careful surveillance for human infection is necessary.

Other arboviruses identified and studied during the year included Tensaw, Western encephalitis (WE), Sawgrass, and Eastern encephalitis (EE). The new study site near the University of South Florida (USF) was unusually productive of *Anopheline* mosquitoes and a large number of Tensaw virus isolates were recovered from these. A small serologic survey of students revealed less than two per cent reactors with the Tensaw antigen. A newly identified Florida tick virus termed "Sawgrass" was recovered from five tick pools during the year. As in the past, these were either *Dermacentor variabilis* or *Haemaphysalis leporispalustris*.

A pre-medical student performed an experimental infection of water snakes with WE virus. The virus was found to circulate in the snake during the first week after laboratory infection. Artificial hibernation was then produced and the snakes checked again for virus circulation; none was detected. Two other students carried out significant research activities. A co-operative education student from University of South Florida performed an experiment to determine the distribution and biological half-life of radioactive iron (Fe^{59}) in the blood of the mourning dove. A pre-medical student from Tulane University participated in an extensive seroepidemiologic study of mumps in a group of 72 families in Hillsborough County. Important data was obtained which will be useful in the public health indications for live attenuated mumps virus vaccines.

The Epidemiological Investigation Service officer assigned to the center participated in a large measles vaccination campaign in Hillsborough County, and in a virus immunity survey of 2900 individuals in the Tampa Bay area; assisted in the investigation of an important dual epidemic of meningococcal meningitis and ECHO-9 viral meningitis in Manatee County; directed the study of mumps epidemiology in the families described above; participated in a study of the neurologic and psychologic sequelae following a mumps viral central nervous system (CNS) infection; and assisted in a large-scale mass field trial of aerosol influenza vaccination.

The latter was conducted in conjunction with the University of Florida, College of Medicine, Gainesville; State Board of Health, Jacksonville; Hillsborough County Health Department; and Hillsborough County Tuberculosis and Health Association.

Other special studies conducted during the year included continuation of the immunization and cross challenge experiments with dengue-2 and SLE viruses, the development of an immunodiffusion technique for identification of EE, and a coöperative study with St. Joseph's Hospital and USF in characterization of arboviruses under the electromicroscope.

OFFICE OF REGISTRATION AND DRUG ADMINISTRATION

EMBRY L. COALSON, B.S., Pharm.
Director

The functions and responsibilities of this office are to render adequate administration, inspection and enforcement throughout the state with reference to the following laws: The issuance of permits to persons to perform alcohol tests under Chapter 322; the registration of practitioners of the healing arts under Chapter 381; the issuance of narcotic licenses as required by Chapter 398; the inspection of drugstores under Chapter 465; the registration of clinical laboratories, personnel, etc., as required by the laboratory law, Chapter 483; the administration and enforcement of the drug and cosmetic division of the food, drug and cosmetic law, Chapter 500; and the administration and enforcement of the bedding law, Chapter 556.

Chapter 322, Implied Consent Law

This program requires that permits be issued by the State Board of Health (SBH) to individuals to perform alcohol breath tests and/or other tests to determine the alcohol content on all persons suspected of being intoxicated. The Act provides that the enforcement will be done by the State Department of Public Safety, and that the instruction be supervised by the State Department of Education with the instructors completing a course approved by the State Department of Education and the SBH consisting of 40 hours of instruction. The approval of equipment is the responsibility of the Bureau of Laboratories.

Chapter 381, Registration of Practitioners of the Healing Arts

This is a continuing program which requires the registration of all Florida licensed practitioners of the healing arts annually. Assistance is given to the official boards involved, which, when combined with the responsibilities under Chapter 500, the Florida Food, Drug and Cosmetic Act, is quite effective in combating medical quackery. This registration is programmed by the Division of Data Processing and the information is available for use by other bureaus and divisions.

Chapter 398, Uniform Narcotic Drug Law

It was originally felt that this chapter in its entirety was transferred to the newly established Bureau of Law Enforcement. The general impression now is that only the criminal provisions were transferred and that the administrative responsibilities are still charged to the SBH. Certain administrative agreements have been reached and the registration required under this chapter is being continued by the SBH; however, an amendment to the law will be necessary during the 1969 legislature. Plans are being made for this registration to be programmed by the Division of Data Processing.

Chapter 465, Pharmacy

Although the registration fee under this law was repealed in 1967 by the legislature, this office is still responsible for assisting the Board of Pharmacy in the enforcement. The responsibility is carried out by the field inspectors during their inspections of pharmacies which is required under Chapter 500, the Florida Food, Drug and Cosmetic Act. Any violations noted are reported to the Florida Board of Pharmacy.

Chapter 483, Clinical Laboratory Law

Under this law, all clinical laboratories and personnel are required to register with the SBH annually. This registration is programmed with the Division of Data Processing and the information is available for use by other bureaus and divisions.

Chapter 500, The Florida Food, Drug and Cosmetic Law

This law requires the annual registration of all products bearing a Florida address. The program is a growing one which is evidenced by the fact that the Federal authorities in 1969 plan to devote 52 per cent of their field inspectors to drug work. At the present, the Federal Food and Drug Administration has 17 inspectors assigned as follows: Miami, nine; Tampa, three; Jacksonville, three; and Tallahassee, two. This office has three inspectors (one each in Tampa, Miami and Orlando) involved in the enforcement of this act. They gather samples which are forwarded to the chemist for analyses.

Chapter 556, Bedding Inspection Law

Under this law, manufacturers, renovators and retailers are required to register annually. This program was transferred to this office February 26, 1968, and is a continuing one with five field inspectors, a supervisor and a chemist. This registration is in the process of being programmed by the Division of Data Processing.

Summary of Activities

Field	
Talks made	64
Inspections made	6877
Items found in violation	3896
Outdated merchandise found	8449
Physical and chemical analyses performed	735
Registration	
Drugstores registered for 1967-68	1776
Pharmacists registered	4050
Wholesalers registered	45
Drug products registered	2799
Clinical laboratories registered	469
Laboratory directors registered	222
Laboratory supervisors registered	847
Laboratory technologists registered	1725
Laboratory technicians registered	835
Bedding manufacturers registered	937
Bedding renovators registered	558
Bedding retailers registered	5067
Physicians registered (See Table 1 for breakdown)	11540
Implied consent permits issued	1216

TABLE 1
PRACTITIONERS REGISTERED WITH THE STATE BOARD OF HEALTH, BY COUNTY OF RESIDENCE, FLORIDA
DECEMBER 31, 1968

County	TOTAL	MEDICAL DOCTORS	OSTEOPATHS	CHIROPRACTORS	NATUROPATHS	CHIROPODISTS	PHYSIOTHERAPISTS
Total In State	8204	6576	462	553	125	177	311
Alachua	278	258	1	4	...	2	13
Baker	5	5	...	...	...	...	...
Bay	45	37	2	4	...	...	2
Bradford	9	7	...	1	...	...	1
Brevard	189	159	4	14	1	3	8
Broward	772	574	79	48	11	23	37
Calhoun	3	3	...	...	...	...	...
Charlotte	20	19	...	1	...	...	...
Citrus	12	6	2	3	...	...	1
Clay	26	22	3	1	...	...	...
Collier	44	34	1	6	1	1	1
Columbia	25	21	...	2	...	...	2
Dade	2251	1898	110	102	35	48	58
DeSoto	9	7	1	1	...	...	...
Dixie	1	...	1	...	...	...	...
Duval	563	492	10	29	8	10	14
Escambia	167	150	...	10	...	2	5
Flagler	2	2	...	...	...	...	...
Franklin	3	1	2	...	...	...	...
Gadsden	16	15	1	...	...	...	...
Gilchrist	1	1	...	...	...	...	...
Glades	1	1	...	...	...	...	...
Gulf	4	4	...	...	...	...	...
Hamilton	2	2	...	...	...	...	...
Hardee	9	8	...	...	...	1	...
Hendry	5	5	...	...	...	...	...
Hernando	10	9	...	1	...	...	...
Highlands	29	25	1	2	...	...	1
Hillsborough	542	418	28	41	22	14	19
Holmes	3	3	...	...	...	...	...
Indian River	42	32	2	6	...	1	1
Jackson	18	15	...	3	...	...	...
Jefferson	5	5	...	...	...	...	...
Lafayette	...	...	...	...	...	...	...
Lake	61	47	3	7	...	3	1
Lee	105	85	1	10	3	3	3
Leon	101	89	2	3	1	2	4
Levy	7	5	...	2	...	...	...
Liberty	...	...	...	...	...	...	...
Madison	6	6	...	...	...	...	...
Manatee	96	66	6	12	3	2	7
Marion	64	51	4	6	...	1	2
Martin	21	19	...	2	...	...	...
Monroe	38	34	3	1	...	...	...
Nassau	8	8	...	...	...	...	...
Okaloosa	35	30	...	5	...	...	...
Okeechobee	6	6	...	...	...	...	...
Orange	492	377	32	34	9	10	30
Osceola	16	8	3	3	...	...	2
Palm Beach	448	349	19	38	5	13	24
Pasco	32	18	10	3	...	1	...
Pinellas	724	503	86	66	16	20	33
Polk	266	220	5	21	2	5	13
Putnam	19	14	...	3	2	...	...
St. Johns	20	17	...	2	...	1	...
St. Lucie	38	28	2	6	...	1	1
Santa Rosa	18	17	...	...	...	...	1
Sarasota	186	139	4	19	4	6	14
Seminole	44	33	1	7	1	1	1
Sumter	3	2	1	...	...	...	...
Suwannee	5	4	...	1	...	...	...
Taylor	7	6	...	1	...	...	...
Union	1	1	...	...	...	...	...
Volusia	214	148	32	18	1	3	12
Wakulla	1	1	...	...	...	...	...
Walton	8	6	...	2	...	...	...
Washington	3	1	...	2	...	...	...
Out of State	3336	2873	173	142	1	66	81
GRAND TOTAL	11,540	9449	635	695	126	243	392

DIVISION OF HEALTH EDUCATION

G. FLOYD BAKER, B.S., M.P.H.
Director

The division continued its philosophy of helping people help themselves by filling requests as personnel, time and materials permitted on a first come, first served basis. These requests from throughout the state include personnel for program planning, speakers, development of pamphlets and exhibits, educational assistance to schools and other community groups, library services, requests for audio-visual materials and equipment, producing and distributing radio spot announcements and numerous health publications.

A close liaison was maintained with the county health departments (CHD), State Department of Education, voluntary and official health agencies, local county schools, PTAs, universities, colleges, junior colleges, hospitals, schools of nursing, professional groups, church and civic groups and many other interested groups and individuals. Inservice education of the staff is a continuing need and function in order to serve as resource people for planning and carrying out health education programs.

A medical librarian was secured in September after a vacancy of 15 months. A health educator from the Bureau of Dental Health was transferred to the division in July, and a health educator position was filled in December on an emergency basis. The position of school health consultant was also transferred to the division from the Bureau of Maternal and Child Health in July. This position has not been filled because of the lack of interested, qualified applicants. Two part-time Neighborhood Youth Corps students were assigned to the division. A new procedure of rotating the three secretaries was initiated to give them a better understanding of the overall function of the division and to be able to use their services to the fullest. There were 17 health educator positions in 10 CHDs or on local projects at the end of the year. Four of these were vacant.

The division helped develop and direct a first-in-the-nation program for school health intern teachers to provide experience in the field of public health education. This was done in conjunction with the College of Physical Education, Health and Recreation, University of Florida, and the Duval County School System. At year's end five students had participated in this program spending five weeks of their 10 weeks of internship in the division. Evaluation of the program by the students, faculty advisors and division staff proved encouraging, and it is anticipated that this will be a continuing cooperative venture.

The division directed the Health Project in Teacher Education for the second year holding planning sessions with the universities and colleges and assisting many CHDs in planning their work for the participating teachers. Despite internal problems in the school system, the project was held at six colleges and universities with 97 teachers participating in 31 CHDs. Personnel from the Venereal Disease Control Program, Division of Nutrition, and Bureaus of Adult Health and Chronic Diseases, and Dental Health assisted in carrying out the project.

Members of the division along with CHD personnel acted as resource people to the State Department of Education's School Health Education Study demonstration project which is funded by a federal grant. Division personnel participated in a two-weeks planning workshop for carrying out the first year's activities. The project is being conducted in Duval, Seminole and Broward Counties and is designed to evaluate materials developed and based on the National School Health Education Study. Numerous State Board of Health (SBH) materials were furnished to the project staff.

The medical library and the audio-visual library received a continuation of the National Library of Medicine Library Grant amounting to $6875 for the second fiscal year of the five-year period to update and improve both facilities. The funds were used to purchase binding for journals, new books, additional shelving and stacks, new library and audio-visual equipment and films.

Medical Library

There were 1587 new books and bound journal volumes added to bring the current total to 26,086. There were 87 unbound articles, publications and miscellaneous materials added to the vertical file. Sixty outdated books were withdrawn from the collection.

SBH and CHD personnel were the most frequent users of the library. Next were the libraries participating in the Jacksonville Hospital Education Program. Students and professional health personnel from throughout the state were frequent users.

Books checked out totaled 1843 with 921 on indefinite loan. There were 92 interlibrary loans requested for patrons. SBH personnel were routed 14,036 journals. Several bibliographies were compiled, 1800 reference questions answered and approximately 4000 photocopies made.

Using Library Grant funds a backlog of 588 volumes was bound at an average cost of $4.75 per volume. Between 250 and 300 volumes should be bound each year to maintain a public health resource library. Grant funds provided new books and individual journal issues missing from the collection.

Audio-Visual Library

The circulation of motion pictures and other audio-visual aids increased by 16 per cent over the preceding year reaching 15,295 items used. The booking orders processed increased by 12 per cent to an all-time high of 11,280.

The aids were used 31,180 times, an average of two uses per shipment. As of December 31 there were 627 motion picture titles listed with 1617 prints and 131 other aids available for distribution. This is a reduction of 147 outdated or damaged motion pictures and other aids removed from circulation.

From the Library Grant, the division and other division and bureau budgets, 23 prints of motion pictures were added to the library and 69 placed in the library on indefinite loan from official and voluntary health agencies and commercial sources.

A new *1969 Audio-Visual Catalog* was compiled and 8000 printed.

Pamphlets

There were 372,273 pamphlets distributed, an increase of 14,472 over the previous year. The most popular subjects included nutrition, chronic diseases, communicable diseases, maternal and child health and safety.

There were 565 people who called for pamphlets and assistance was given to 1985 who called for other health related information.

Twenty pamphlets, posters, booklets and fliers were printed outside the SBH, and 24 new or revised pamphlets were printed in the SBH print shop.

Radio And Publications

The division was given the responsibility of preparing and distributing a new publication, "Florida Trends in Public Health," devoted to program material. There were nine issues published on a monthly basis. Other publications produced during the year included "Intelligencer," a quarterly personnel newsletter and the 12-month calendar published semi-annually. Twelve new radio spot announcements were written and distributed to over 200 stations.

Exhibits And Illustrations

The work of the creative services section continued to increase at a rapid rate. The one-man staff completed 769 units of work, an increase of five per cent. The work ranged from a single piece of work in a unit to more than 50 pieces in others.

A large per cent of time was spent on illustrations and signs. Other types of work included displays and exhibits; reproduction for layouts, maps, charts and graphs; photographic layouts and serving as consultant to many other projects.

Photography

Photographs were taken at numerous sites throughout the state in response to 57 requests. These included several hundred color slides for one CHD, color photographs for exhibits and publications, reproduction of charts and maps. There has been a great increase in the demand for color photography in pamphlets and exhibits.

DIVISION OF PERSONNEL

MILES T. DEAN, M.A.
Director

Under the general direction of the State Health Officer, this division is responsible for the administration of the personnel program of the State Board of Health (SBH). This includes advising administrative officers concerning personnel practices and development; putting into effect procedures for carrying out approved personnel policies; participating in the preparation and administration of the approved Classification and Compensation Plan; administering the leave regulations; maintaining adequate personnel records on all persons employed in the agency; acting as liaison official with the State Personnel Board in matters involving requests for certificates and reporting on the selection of eligibles, promotions, salary advancements, salary adjustments, demotions, transfers, dismissals, lay-offs and resignations; providing and administering a service rating system; and the preparing of state and federal reports. Payroll operation, also a responsibility of this division, includes the administration of leave accounting, the employee insurance program, retirement and Social Security, as well as the preparation of the administrative payroll, and distribution of warrants. Preparation of the salary portion of the Legislative Requesting and the Operational Budgets is also a responsibility of this division.

There were several major changes in the Personnel operation during 1968. New leave regulations were established by the State Personnel Board, effective January 1.

On March 1, the payroll procedure was changed to biweekly. Employees voted almost two to one for this change.

A new Classification and Pay Plan was established by the State Personnel Board, effective July 1. This included a new concept in pay, with more flexibility for employment, as well as salary increases. The new Classification and Pay Plan provided uniform pay and classification for practically all state employees.

On September 30, there was a curtailment of the *Aedes aegypti* Mosquito Eradication Project, requiring, with one month's notice, the layoff of over 600 employees.

Turnover of personnel continues to be high. Difficulty in recruitment and retention of employees continues to increase. Recruitment and retention of nurses, dentists, and sanitary engineers continues to be a real problem.

TABLE 2

EMPLOYEES IN THE FLORIDA STATE BOARD OF HEALTH AND COUNTY HEALTH UNITS AS OF DECEMBER 31, 1959-1968

YEAR	STATE	COUNTY HEALTH DEPARTMENTS	TOTAL EMPLOYEES
1968	858	2517	3375
1967	822	2832	3654
1966	929	2769	3698
1965	914	2647	3561
1964	843	2326	3169
1963	762	1918	2680
1962	692	1821	2513
1961	626	1593	2219
1960	604	1534	2138
1959	586	1396	1982

TABLE 3

PERSONNEL IN ADMINISTRATIVE UNITS OF THE FLORIDA STATE BOARD OF HEALTH (EXCLUDING COUNTY HEALTH DEPARTMENTS), BY CLASSIFICATIONS, DECEMBER 31, 1968

Administrative Unit	Totals	Physicians	Public Health Dentists	Public Health Nurses	Sanitary Engineers	Sanitarians	Laboratory Wkrs. (Prof. and Tech.)	Other Professional and Technical	Clerical	All Others
Grand Total	858	28	4	24	39	14	254	144	282	69
Administration										
Research	41	1	......	......	......	1	14	11	14	......
State Health Officer	32	5	......	......	......	......	......	11	17	......
Registration & Drug Administration	15	......	......	......	......	......	1	10	4	......
Health Education	15	......	......	......	......	......	......	7	4	4
Personnel	14	......	......	......	......	......	......	4	10	......
Nursing	12	......	......	9	......	......	......	......	3	......
Encephalitis Research Center	4	1	......	......	......	......	1	......	......	2
Adult Health & Chronic Diseases	18	2	......	1	......	......	......	5	10	......
Dental Health	8	1	4	......	......	......	......	......	3	......
Entomology										
State and Regional Office	22	......	......	......	......	......	11	2	3	6
Research Center Vero Beach	49	......	......	......	......	......	36	2	3	8
Arthropod Laboratory in West Florida	16	......	......	......	......	......	11	1	2	2
Finance & Accounts										
Fiscal	14	......	......	......	......	......	......	4	8	2
Purchasing & Property	9	......	......	......	......	......	......	2	6	1
Building & Facilities	53	......	......	......	......	......	......	1	14	38
Laboratories										
Central — Jacksonville	72	......	......	......	......	......	62	......	10	......
Miami	24	......	......	......	......	......	19	......	5	......

TABLE 3 (Continued)

Administrative Unit	Totals	Physicians	Public Health Dentists	Public Health Nurses	Sanitary Engineers	Sanitarians	Laboratory Wkrs. (Prof. and Tech.)	Other Professional and Technical	Clerical	All Others
Orlando	11	......	......	......	......	......	10	......	1	......
Pensacola	9	......	......	......	......	......	7	......	1	1
Tallahassee	8	......	......	......	......	......	7	......	1	......
Tampa	7	......	......	......	......	......	6	......	1	......
West Palm Beach	26	......	......	......	......	......	22	......	3	1
Epidemiology of St. Louis Encephalitis	15	......	......	1	......	......	12	......	2	......
Local Health Services										
Bureau of Local Health Services	13	2	......	......	......	......	......	4	7	......
Sanitation	9	......	......	......	......	7	......	......	2	......
Nutrition	10	......	......	......	......	......	......	8	2	......
Civil Defense	3	......	......	......	......	......	......	2	1	......
Maternal & Child Health	49	6	......	12	......	1	1	13	15	1
Preventable Diseases										
Bureau of Preventable Diseases	8	3	......	......	......	......	......	......	5	......
Radiological & Occupational Health	12	1	......	......	......	......	......	7	4	......
Tuberculosis Control	31	4	......	......	......	......	12	2	13	......
Venereal Disease Control	21	......	......	......	......	......	......	17	4	......
Veterinary Public Health	5	......	......	......	......	2	......	1	2	......
Vaccination Assistance Project	3	......	......	......	......	......	......	1	2	......
Sanitary Engineering and Air Pollution Control	96	......	......	......	39	3	21	6	25	2
Health Facilities & Services										
Bureau of Health Facilities & Services	34	2	......	1	......	1	1	13	16	......
Vital Statistics										
Bureau & Division of Vital Records	48	......	......	......	......	......	......	2	46	......
Statistics	7	......	......	......	......	......	......	5	2	......
Data Processing	15	......	......	......	......	......	......	3	11	1

TABLE 4

PERSONNEL IN COUNTY HEALTH UNITS (BY CLASSIFICATION) FLORIDA, DECEMBER 31, 1968

COUNTY	TOTALS	Physicians	Dentists	Public Health Nurses	Sanitary Engineers	Sanitarians	Laboratory Workers Prof. & Tech.	Other Professional and Technical	Clerical	All Others
Alachua	45	1	1	18	...	9	...	2	10	4
Baker	4	...	...	1	...	1	...	...	1	1
Bay	16	1	...	6	...	4	...	...	3	2
Bradford	9	1	...	4	...	1	...	...	2	1
Brevard	73	1	1	22	2	14	3	2	20	8
Broward	144	3	3	49	3	21	4	6	41	14
Calhoun	5	...	...	2	...	1	...	...	1	1
Charlotte	17	1	...	6	...	3	...	1	4	2
Citrus	5	1	...	2	...	1	...	...	1	...
Clay	11	...	...	6	...	2	...	...	2	1
Collier	26	1	...	9	...	6	...	...	6	4
Columbia	11	1	...	2	...	4	...	...	3	1
Dade	548	55	11	185	2	62	14	36	139	44
DeSoto	6	...	...	3	...	1	...	...	2	...
Dixie	3	...	...	1	...	...	...	...	1	1
Duval	63	2	1	25	1	14	2	...	14	4
Escambia	80	2	1	27	...	13	2	2	19	14
Flagler	3	...	...	1	...	1	...	...	1	...
Franklin	3	...	...	1	...	1	...	...	1	...
Gadsden	14	1	...	6	...	3	...	...	3	1
Gilchrist	3	...	...	2	...	...	...	...	1	...
Glades	3	...	...	1	...	1	...	...	1	...
Gulf	5	...	...	2	...	1	...	...	2	...
Hamilton	4	...	...	1	...	1	...	...	1	1
Hardee	7	...	...	3	...	1	...	...	2	1
Hendry	15	...	...	5	...	2	...	...	4	4
Hernando	5	...	...	2	...	1	...	...	2	...
Highlands	11	1	...	4	...	3	...	...	3	...
Hillsborough	208	6	...	68	2	34	7	10	43	38
Holmes	8	...	...	4	...	1	...	...	2	1
Indian River	12	1	...	5	...	3	...	...	2	1
Jackson	16	1	...	7	...	2	...	...	3	3
Jefferson	6	1	...	2	...	1	...	...	1	1
Lafayette	4	...	...	1	...	1	...	...	1	1
Lake	16	1	...	7	...	3	...	...	4	1
Lee	37	2	...	15	...	8	1	...	11	...
Leon	44	2	...	14	...	11	...	1	12	4
Levy	8	...	...	3	...	1	...	...	2	2
Liberty	3	...	...	1	...	...	...	...	1	1
Madison	5	1	...	1	...	1	...	...	1	1
Manatee	45	1	1	13	1	7	4	...	12	6
Marion	26	...	...	12	...	4	...	1	7	2
Martin	8	...	...	4	...	2	...	...	2	...
Monroe	20	1	...	7	...	4	...	...	5	3
Nassau	13	1	...	4	...	2	...	...	5	1
Okaloosa	22	1	...	9	...	4	1	...	4	3
Okeechobee	4	...	...	1	...	1	...	...	1	1
Orange	134	3	1	46	...	21	2	5	39	17
Osceola	6	...	...	2	...	2	...	...	2	...
Palm Beach	165	9	2	49	4	23	2	14	36	26
Pasco	15	1	...	8	...	2	...	...	2	2
Pinellas	195	4	2	82	3	30	7	6	47	14
Polk	97	1	1	44	2	10	2	2	22	13
Putnam	14	1	...	6	...	3	...	...	4	...
St. Johns	12	1	...	5	...	3	...	...	2	1
St. Lucie	22	1	...	9	...	6	...	...	5	1
Santa Rosa	16	1	...	8	...	1	...	...	4	2
Sarasota	66	1	1	24	...	11	...	3	19	7
Seminole	26	...	...	14	...	4	...	...	6	2
Sumter	4	...	...	1	...	1	...	...	1	1
Suwannee	10	1	...	3	...	1	...	...	3	2
Taylor	5	...	...	2	...	1	...	...	1	1
Union	3	...	...	1	...	1	...	...	1	...
Volusia	64	2	1	27	...	11	1	1	14	7
Wakulla	3	...	...	2	...	...	...	...	1	...
Walton	11	1	...	4	...	1	...	...	3	2
Washington	5	...	...	2	...	1	...	...	1	1
GRAND TOTAL	2517	118	27	913	20	395	52	92	622	278

TABLE 5

EMPLOYMENT TERMINATIONS AND TURNOVER RATES BY CLASSIFICATION AND SALARY, FLORIDA STATE BOARD OF HEALTH AND COUNTY HEALTH UNITS, 1968 (FULL-TIME EMPLOYEES ONLY)

CLASSIFICATION	SALARY										
	TOTAL	Under 199	200-299	300-399	400-499	500-599	600-699	700-799	800-899	900-999	1000 over
TERMINATIONS 1968											
Total — All Employees	2164	...	139	1399	279	193	100	26	7	1	20
Physicians	19	...	...	...	...	...	...	...	...	...	19
Dentists[1]	2	...	...	...	...	...	...	1	...	...	1
Sanitarians	53	...	...	...	6	30	15	2	...	...	...
Sanitary Engineers	15	...	...	...	...	6	4	4	1	...	...
Public Health Nurses	199	...	...	...	33	110	46	10	...	...	...
Laboratory Workers Professional & Technical	90	...	...	42	15	17	12	4	...	...	...
Other Professional & Technical	67	...	...	...	16	22	21	5	3	...	...
Clerical	356	...	74	221	51	10	...	...	...	...	...
All Others	109	...	65	37	7	...	...	...	...	...	...
(*Aedes aegypti* Eradication Project)*	1254	...	...	1099	151	4	...	...	...	...	...
TURNOVER RATE**											
Total — All Employees	67.4	...	34.6	214.2	81.3	22.7	19.5	21.3	6.3	2.0	10.9
Physicians	16.5	...	...	...	...	...	...	...	...	...	16.5
Dentists[1]	60.2	...	...	...	...	...	...	100.0	...	...	16.6
Sanitarians	13.2	...	...	...	20.0	17.4	11.5	5.9	...	...	...
Sanitary Engineers	24.6	...	...	...	...	...	200.0	44.4	37.6	14.3	...
Public Health Nurses	21.8	...	...	...	41.3	19.2	21.2	38.4	...	...	...
Laboratory Workers Professional & Technical	29.4	...	...	56.0	27.3	62.9	28.6	16.7	...	...	...
Other Professional & Technical	29.3	...	...	...	100.0	61.1	29.2	17.9	6.8	...	...
Clerical	40.5	...	42.8	42.2	31.7	45.4	...	...	...	...	...
All Others	37.8	...	33.3	77.1	35.0	...	...	...	...	...	...
(*Aedes aegypti* Eradication Project)*	152.9	...	...	157.0	126.8	...	...	...	...	...	...

[1] Does not include Dental Preceptees

*Project terminated September 30, 1968

**Per cent of full-time employees terminating by classification during 1968

DIVISION OF PUBLIC HEALTH NURSING

ENID MATHISON, R. N., M. P. H.
Director

The division is the immediate representative of nursing within the State Board of Health (SBH). It provided guidance and leadership for public health nursing throughout the state. Consultation is available for continuous evaluation of programs and services necessary to fulfill the responsibilities of public health nursing in the county health departments.

Special effort is made to identify closely with all bureaus and divisions in the coordination and correlation of public health nursing services. The consultant who has an interest and preparation in a specialty relates directly to that respective bureau; example: maternal and child health, mental retardation, geriatrics, and chronic diseases. Public health nursing is the organizational instrument through which the programs and projects of the SBH are implemented.

The consultants offer assistance in the definition and solution of problems, pointing out the relationship of individual problems to the larger public health concepts. The role of the nurse at the local level is to give direct service to the community, to interpret and teach health principles, give care to the sick in the home, and to introduce new programs in such a way that they will be acceptable to the community. The division, through its consultants, offers knowledge and support of resources in all phases of the nursing program.

Today, possibly more than ever before, the role of public health nursing requires responsive and creative adaptation to a constantly changing environment. The promotion and assistance in the implementation of inservice education programs has been given high priority by the division. The need for more assistance than the limited staff can provide is urgently needed, particularly in the 50 smaller counties.

Consultation to agencies providing Home Health Services, approximately 60, continues to require an undue percentage of the time of the consultants. A considerable amount of time is devoted to surveys and resurveys, necessary for certification of the agency. Validation of the charges for service necessitates time-consuming time and cost studies. Table 6 gives some comparisons of the amount of time spent and the cost for health supervision and nursing care of the sick in the home visits.

The Continuing Education Committee, an integral part of all program planning and preparation of educational materials for use in the counties met six times. This committee is a very vital link between the division and the county health departments (CHD). The membership of the committee represents directors and supervisors from medium and small counties and a public health faculty member from a college of nursing.

A sharp decrease was noted in midwife educational and supervisory programs. The number of midwives licensed was 135, a decrease of 13 from 1967. A corresponding decrease in births attended by midwives is reflected in the 1967 vital statistics. For the first year no new applicant was licensed to practice midwifery.

At the request of the University of Michigan School of Public Health three graduate nurse students were given a two weeks observation of the public health nursing program in the state.

Twelve newly employed nurses from diploma programs, which do not include preparation in public health, had the eight weeks orientation in the four Field Teaching Centers. These nurses are from small counties where the local staffs do not have the time or qualifications for giving the orientation.

The 15 orientation programs at the six Sunland Training Centers were attended by 344 professional workers, including public health nurses, teachers in special education programs, social workers, and vocational counselors. These programs are planned and presided over by the consultant in mental retardation. Professional staff members in the centers are now, in their presentations, giving attention to the need for more community services for the mentally retarded.

A six hour course for nurses on Post Hospital Care of the Patient with Myocardial Infarction was held in five areas of the state. They were jointly sponsored by the division and the state and local heart associations. The total attendance was 322.

The consultants made 346 visits to CHD's, hospitals, nursing homes and prospective or certified home health agencies. The visits vary in length from a few hours to four days, the longer visits being in small health departments where nursing supervision is not available.

TABLE 6

COMPARISON OF TIME AND COST FOR NURSING HEALTH SUPERVISION VISITS AND HOME VISITS FOR GIVING CARE FOR DISEASE AND DISABILITY (sick) IN 1963-64 and 1966-67

COUNTY	1963-1964				1966-1967			
	HEALTH SUPERVISION Home Visits		DISEASE AND DISABILITY Home Visits		HEALTH SUPERVISION Home Visits		DISEASE AND DISABILITY Home Visits	
	Time (Min)	Cost	Time (Min)	Cost	Time (Min)	Cost	Time (Min)	Cost
MANATEE	30	$ 3.45	49	$ 5.58	57	$ 7.90	56	$ 7.75
MARION	31	$ 4.82	31	$ 4.82	31	$ 5.26	31	$ 5.25
POLK	33	$ 4.02	46	$ 5.48	44	$ 7.11	55	$ 8.87
SARASOTA	38	$ 4.97	54	$ 7.10	44	$ 9.61	44	$ 9.39
SUWANNEE	23	$ 2.91	34	$ 4.31	49	$ 8.53	58	$10.11

Division of PHN
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BUREAU OF ADULT HEALTH AND CHRONIC DISEASES

J. E. FULGHUM, M. D.
Director

The nature and extent of the problems of various chronic diseases which are public health problems continued to be examined by the bureau. Education and training programs have played a large part in the activities of the staff. Progress was made in increasing the knowledge and awareness of the public about chronic diseases; active participation was successful in bringing to the physician an awareness and appraisal of the newer methods of prevention, diagnosis, treatment and rehabilitation of patients with chronic diseases.

The active ongoing programs within the bureau are programs in aging, cancer, hearing aids, heart disease, diabetes, prevention of blindness, and smoking and health. Detailed reports of these programs will follow under their respective sections. Every effort has been made to evaluate and strengthen the present programs during the past year.

Florida Regional Medical Program (RMP)

The staff has devoted considerable time in working with the Florida Regional Medical Program. The State Board of Health (SBH) was represented on the Task Force for Heart and the Task Force for Cancer. The State Health Officer is a member of the Florida Advisory Council.

The following project grant requests have been prepared and submitted to the RMP for consideration of funding:

Rural three county hypertension program (funded);

Cardiovascular screening program in four rural counties;

Stroke survey and rehabilitation;

Computerized EKG screening program;

Coronary care unit program for North Florida; and

Computerization of coronary care units — a pilot study.

The Demonstration Hypertension Control Program has been funded and is in operation. The remaining proposals are still going through the administrative machinery of review and evaluation.

Approved grants are funded by awards made to the Florida Advisory Council. The Council in turn negotiates a contract with the SBH to carry out the provisions of the grant application. Payments are made in monthly increments.

Dealing with RMP has been a complicated procedure, but it is felt that it has many desirable features. One of the most outstanding, is that of insisting on the involvement of all related agencies in the area. This insures community-wide participation in the program.

Health Profile Screening

Health profile screening to encourage early detection of disease has been emphasized where such programs met the needs of a community.

In Florida, screening programs for tuberculosis, the venereal diseases, carcinoma, diabetes and glaucoma have been conducted. Most patients with these early, and previously unknown, chronic conditions have been successfully treated in physicians' offices, or outpatient clinics, and the need for hospitalization for advanced stages of the disease reduced.

Screening is the identification of unknown and unrecognized disease or defects by tests of examination that can be applied with ease and rapidity on apparently healthy persons. Screening tests are not diagnostic but direct the screenees to their own physicians for further medical workup. Health profile screening examinations may well be carried out by monophasic or multiphasic procedures in the offices of physicians, hospital outpatient settings, or in special centers operated under the direction of the local physicians, and with the cooperation of the volunteer societies, the county health departments (CHD) and other community agencies interested in the health of the people. Through screening, those people most likely to need medical attention are referred to their physician. Thus, the busy physician's time can be better utilized for early diagnosis and treatment.

Early identification, diagnosis, and treatment obviously prevent suffering, disabling conditions in later life, and prolong useful life.

Consultation Visits

During the year the staff of the bureau provided field consultation visits as follows: cancer, 43; diabetes, 81; hearing aids, 7; heart, 176; prevention of blindness, 45; smoking and health, 37; other special projects totaled 44; with a combined total of 432 trips or other visits.

Relationship with Other Organizations and Agencies

The bureau is represented on the Florida Cancer Council; the Florida Coordinating Council for Cardiovascular Diseases; the American Cancer Society, Florida Division, Inc.; the Public Health Cancer Association of America; the Florida Committee on Smoking and Health; the Florida Diabetes Association; the Florida Society for the Prevention of Blindness; and the Florida Tuberculosis and Respiratory Diseases Association. These activities contribute to a good working relationship with the major voluntary health agencies within the state.

U. S. Public Health Service (USPHS) assigned an ophthalmologist and a public health advisor to the Prevention of Blindness Program.

AGING

Aging might be defined as a series of developmental stages or processes occurring from birth to death. However, for this report, aging or aged will refer to those persons over 65 years of age.

The aged population is a special risk group from a health standpoint. According to a U. S. National Health Survey (1961 – 1963), 81 per cent of the persons 65 and over reported one or more chronic conditions. Forty-nine per cent reported a chronic condition that limited their activities, and 16 per cent were unable to carry on major activity.

Health problems of an aging population are well known and identifiable. There are presently 806,300 persons over 65 in Florida who are afflicted with the usual infirmities of the aging. Many of these people are on fixed incomes and have been caught up in the increased cost of living, high taxes, and of the disabilities resulting from the chronic diseases. They find themselves with depleted resources and become dependent on the community for assistance. Florida has more than its share of these individuals because it is a favorable retirement state.

Responsibility for this program is vested in the bureau. Close liaison is maintained with the Commission and Council (the voluntary health agency in Florida) on Aging and the Florida

Medical Association's Committee on Aging. Health services for the aging are provided by the CHD's as a part of the general health services which are available to the population at large.

Health education, preventative screening, early casefinding and physical rehabilitation programs are desirable components of an active program on aging and are planned for and implemented whenever staff and time permit within the bureau.

Osteoporosis

Many retirement communities in Florida continue to be plagued with orthopedic problems relating to severe osteoporosis. A preliminary survey of nine retirement communities showed that as high as 10 - 15 per cent of the residents have some disabling fractures each year. Complications of disabling fractures are frequently mentioned as one of the leading causes of death in the elderly.

The Needs of the Aging with Regard to Hearing Aids

An investigation involving 290 older persons was carried out to gain information concerning the use of hearing aids by these individuals. The investigation was carried out in three parts: gather data, referral of suspects, and analysis of data obtained.

Those persons screened completed a comprehensive self-administered history sheet. For those who had used or owned a hearing aid, another questionnaire was also filled out. Following this, the ears were examined by an otoscope and an audiogram was given. The average hearing loss was computed. If the individual had evidence of otic disease or moderate hearing loss, the patient was referred to his physician.

A detailed analysis of the accumulated data is presently being carried out.

CANCER CONTROL PROGRAM

The impact of cancer on the population and economy of Florida continued its upward trend during 1968. These malignant neoplasms continue as the second leading cause of morbidity and mortality not only for Florida but for the nation as well. The rates for both mortality and morbidity increased over the previous year. It is estimated that 11,800 persons died of cancer in Florida during 1968. In 1967, there were 11,187 cancer deaths. Comparative figures for cancer deaths over the past decade reflect 6101 deaths in 1957, or about half the number for 1967. Provisional figures in Florida during 1968 indicate a cancer death rate per 100,000 population of 191.1, while the national rate was estimated as 158.8.

A consideration of great importance in studying the cancer problem in Florida is the age factor. Florida, the ninth most populated state in the nation, has not only increased its population drastically in recent years, but its older population is increasing over the national rate.

The final mortality figures for cancer in 1967 reflected the trends of the past decade. Cancer of the respiratory system rose from 2387 in 1966 to 2500 in 1967. This rise is due primarily to the fact that lung cancer in men has increased more than 15 times in the past 35 years and is now increasing in women. Breast cancer, a major cause of death in women ages 40-44, rose from 867 in 1966 to 878 in 1967. Cancer of the female organs continued to decline. An influencing factor is the early detection method of cervical cytology screening being used by most CHD's and the majority of physicians. A rise from 610 cancer deaths due to female organs in 1957 to a high of 813 in 1965, and a decline to 748 in 1967, reflects this trend. The rate of 24.2 in 1967 is lower than the rate in 1957 of 28.3. Cancer of the large intestine, while improved over the years, remains as a major site along with cancer of the rectum. The digestive system, especially cancer of the stomach, still shows a slight downward trend. Cancer of the pancreas is moving slightly upward.

The overall cancer mortality trends have been influenced greatly by the rise of lung cancer in men, an almost wholly preventable disease and the largest decline in cancer of the uterus through early detection techniques. Except for these factors the cancer mortality trend is generally downwards.

Tumor Clinics

The 26 approved tumor clinics continued their cancer control services for their communities and the adjacent areas throughout the state. Support for this coordinated program is largely derived from the hospital, the individual physician, the American Cancer Society, Florida Division, Inc., and the SBH. Through these clinics, the indigent and medically indigent cancer victim may receive the necessary diagnosis and treatment. Clinic activities are reflected in the total patient visits as shown in Table 7. Through the SBH, some of the material costs to the institution for diagnostic studies for the indigent were defrayed from a special budget. Half of the ancillary personnel that staff the tumor clinics are budgeted through funds provided by the SBH to the CHD. Consultation services are provided from the Cancer Control Program to the tumor clinic directors, secretaries, registry clerks and the institution.

Cancer control throughout the state receives valuable assistance through the CHD. The county health officer provides the liaison medium through which indigent services are coordinated, tumor clinic admission may be gained, and hospitalization is afforded to the indigent patient. The public health nurse is utilized in the vast majority of tumor clinics. She helps staff the clinic and provide a wide variety of nursing services to the indigent cancer patient as instructed by the referring physician. A major problem with the cancer patient follow-up program is greatly reduced through the public health nurse and her ability to maintain contact with and to persuade the patient to continue therapy or return for treatment.

The tumor clinic operations generally did not change during 1968. Medicare has affected the tumor clinic operation in various ways. The anticipation of Medicaid or Title XIX programs expected to be enacted in 1969 is a matter of great speculation. The combined effect of these programs to eliminate the indigent patient will not eliminate the Cancer Control Program. The year represents a period of evolution for the tumor clinic in that a major shift of program emphasis has begun. The increasing scope of third party (indigent medical insurance) programs is greatly reducing the indigent problem, and therefore, reduces that portion of clinic operations. This does not remove the need for the tumor clinic concept. To emphasize the change in imagery, the "Approved Tumor Clinic" will become the "Approved Hospital Cancer Control Program." The implementation of the RMP (Heart, Cancer and Stroke) and its philosophy of continuing education is providing the basis for this expanding of an indigent tumor clinic service into a broader hospital-wide "modus operandi" of Cancer Control. Such a program encompasses the tumor clinic, the hospital-wide cancer registry, the tumor board or conference, and broader staff involvement of review of cancer treatment at the hospital. The Hospital Approved Cancer Control Program is aimed at bringing the highest expertise and sophisticated treatment possible to the patient regardless of his status in life.

Cervical Cytology

The major reduction in a cancer site is cancer of the cervix uteri. This has been accomplished by the early detection technique of the Papanicalou (Pap) smear or cervical scrape. Cervical cytology conducted by the CHD has grown in recent years and during 1968, the vast majority of the counties screened their indigent female population through their ongoing local programs. Cervical cytology screening was conducted in 57 counties, screening 40,233 women. Among those screened, 507 women were suspected to have cancer and 120 were positive, the total is an increase of 6851 over 1967 when 33,382 women were screened.

The ease of implementation of the cervical cytology screening program at the CHD is made possible by three basic factors. First is the dedicated support of the Florida Society of Pathologists who established a state-wide minimum fee of $2.75 per slide interpretation. This fee is not for professional services but is to offset the costs of processing the slides and for other materials. The second feature is that the population to be screened is easily reached through the existing CHD programs such as postpartum care and family planning clinics. The third and most important feature is the ability of the CHD to provide follow-up and follow-through on the suspicious and positive cases brought to light by these screening activities. Repeat smears are performed and patients are referred for diagnosis or treatment. The tumor clinics are able to provide the final steps of diagnosis and treatment as determined by the physician in charge.

Statistical Tabulating Center

The Statistical Tabulating Center collected cancer information from 18 tumor registries throughout the state. Through 1968, there were 33,100 primary cancer cases recorded in the center. The number of cases will probably reach 43,000 to 44,000 during the coming year 1969.

The major functions of the Tabulating Center are to provide administrative supervision of the local tumor registries through review of abstract information being submitted. In its review of these abstracts the Center is able to provide a limited measure of quality control over the local registry. Collectively these local registries will provide some indices as to the state-wide picture of cancer morbidity. Cancer mortality is readily available from death records filed at the SBH. The Center provides feedback to assist the local registry by providing two monthly IBM lists. They are an alphabetical listing of all reported deaths where cancer is listed as the cause of death and an alphabetical listing according to the individual clinic of their eligible follow-up cases for the month. These IBM listings provide a check to the local registry as well as potential time-saving in their record work.

TABLE 7

PATIENT VISITS, FLORIDA TUMOR CLINICS, 1962, 1964, 1966, 1968

CLINICS	1962	1964	1966	1968
Alachua General Hospital	198	185	125	127
Bay County Tumor Clinic	494	647	616	498
Brevard County Tumor Clinic	......	15	50	**
Broward County Tumor Clinic	563	500	325	517
Duval Medical Center	5028	6318	5496	4641
Escambia County Tumor Clinic	2462	2380	2187	990
Halifax District Hospital	204	550	146	**
Hollywood Memorial Hospital	......	......	225	296
Jackson Memorial Hospital	3482	3823	3246	3228
Lake County Tumor Clinic	......	......	11	7
Manatee County Tumor Clinic	243	146	149	151
Marion County Tumor Clinic	150	187	288	185
Mercy Hospital	......	......	338	199
Mount Sinai Hospital	1238	1383	1359	1426
Orange Memorial Hospital	2819	2923	3144	2197
Pinellas County Tumor Clinic	1829	2595	2095	1661
Polk County Tumor Clinic	......	1767	1622	1530
Sarasota County Tumor Clinic	297	369	237	246
St. Francis Hospital	830	799	662	501
St. Lucie County Tumor Clinic	129	246	215	197
St. Mary's Hospital	919	996	984	464
St. Vincent's Hospital	1670	2120	2433	3223
Tallahassee Memorial Hospital	1280	1487	1300	1136
Tampa General Hospital	3961	3618	3653	3859
University of Florida	3162	3371	3612	3514
Variety Children's Hospital	710	688	1047	850
TOTALS	31668	37113	35565	31643

**No Reports for 1968

To date, the Center has published three annual reports. These reports reflect information on the state's population and population growth. Cancer mortality figures according to site are published in tables and graphs. Morbidity figures collected from the individual 18 registries are also presented. The fourth report for the period July 1963 through December 1968 will be published in early 1969.

Florida Cancer Council

The Florida Cancer Council continued as a major coordinating body for its member agencies on cancer affairs throughout the state. Meetings were held on May 10 in Miami Beach and November 9 in Fort Lauderdale. The Council met with the Association of Florida Tumor Clinic Directors in a special meeting September 28 in Tampa. This meeting was called to provide special emphasis to the upgrading and improvement of tumor clinic programs and functions. Sponsoring this meeting were the Florida Chapter of the American College of Surgeons; the American Cancer Society, Florida Division, Inc.; and the SBH. A special meeting of the Council was held on December 9 in Tampa to establish guidelines and liaison with the RMP in Florida.

DIABETES CONTROL PROGRAM

Florida's popularity as a retirement area has caused a corresponding increase in the number of both known and unknown diabetics in Florida. Based on preliminary data obtained during the period January 1, to September 30, it is estimated that 1100 Florida residents died of diabetes during 1968. This is an increase of 14.9 per cent in the number of deaths due to diabetes over 1967. This increase may be due in part to better reporting of the causes of death by physicians but this should not be considered as the only reason for such a large increase.

In 1968, diabetes was ranked as the tenth leading cause of death among Florida residents. The non-white female continues to have an average death rate almost twice as high as the average death rate for the entire state. More intensive casefinding is needed among this group to find and bring undetected diabetics under the treatment of their physicians.

Diabetic retinitis ranks a close third as a cause for blindness within the state. Only cataracts and glaucoma are greater causal factors for blindness at this time.

The Diabetes Control Program is organized into three areas: insulin distribution, casefinding and education.

Insulin Distribution

The state appropriation for insulin to be distributed to the medically indigent diabetics of the state is $60,000 for the fiscal year 1968-69. Approximately 4247 medically indigent patients are now receiving all or part of their insulin from state sources through the CHD's. The average annual cost per patient under this program decreased from $14.12 in 1967 to $13.22 in 1968, primarily due to the decrease in the cost of insulin. However, the increase in the number of patients under this program during the six months of 1969 shows that the $60,000 per year budget may not be adequate to provide this service to the same degree as it has been offered in the past unless additional funds are obtained.

The insulin distribution program has local diabetes registries which are used for follow-up, for relative case-finding programs and as a reliable source of data for program evaluation.

Casefinding and Service to the Patient

Most cases of diabetes can be easily controlled by early and proper treatment. This treatment is most effective among those cases which are diagnosed at an early stage of this disease, and a vigorous program of patient education, including thorough coverage of the diabetic diet by qualified persons, is being offered in classes and the home. All persons over 40 years of age are encouraged to have periodic two-hour post-prandial blood sugar determinations. Testing of the non-white females should begin at age 30 due to the peculiar early rise in death due to diabetes among these women. All relatives of known diabetics should have blood sugar determinations made annually because of the higher incidence of the disease among this group.

Casefinding is primarily the responsibility of the CHD, with assistance from the community and SBH in the areas of consultation, program planning, and limited financial aid for conducting diabetic surveys. Casefinding activities were reported in over 50 counties throughout the state. Approximately 45,000 persons were given screening tests in these programs during 1968, with approximately 2100 persons being referred to their family physicians for diagnosis. The breakdown of relative and non-relative screening programs conducted through the various participating CHD's is shown in Table 26.

Programs in the CHD clinics are especially useful as they screen not only persons who do not regularly visit their physicians but also are able to test large numbers of the non-white population.

In 1967, the Diabetes Foundation of Florida leased a large van-type truck to the Broward County Health Department for use as a mobile detection center for diabetes. This clinic was operated by a public health nurse in various parts of the county in 1967 and 1968. A final evaluation of the operation of this program during the period from March 1967 through December 1968, in terms of the number of persons referred and the follow-up data are listed in Table 8. These figures indicate that 2.4 per cent of the persons tested were referred. Of those persons who were referred, 57.2 per cent were found to be either new cases of diabetes or old cases who had stopped going to their physicians but who now are back under treatment as a result of this program.

Casefinding activities have been primarily in three areas, offices of private physicians, community diabetes screening programs. With the availability of monies to provide for the hospitalization of migrants, casefinding programs among the migrant population of the state have now become feasible and active. Migrants who are newly found diabetics may now be hospitalized for regulation of their condition.

The three methods for determining blood sugar levels currently being utilized in Florida allow greater flexibility in casefinding and routine patient care. The speed and ease of the Dextrostix method make it extremely useful and popular in conducting mass screening programs. The accuracy of these sticks has been found to be sufficient for screening for both hyper- and hypoglycemia conditions within the general population. The Unopette method involving capillary blood now makes it possible to obtain sufficient blood for autoanalyzer determinations from persons who have badly scarred or thrombosed veins without undue discomfort to these persons. The Vacutainer method of conducting venous blood sugar evaluations is still the most popular for determining the degree of control known diabetic patients are maintaining.

Screening programs for diabetics is one method conducting extensive public education. Large coordinated community diabetes screening programs were conducted in Florida during Diabetes Week. Health fairs and special clinics were also held throughout the year. Postprandial blood sugar determinations, two hours after a test meal, are stressed as the method of choice. Relative testing programs are the most productive, and CHD's and community organizations are encouraged to conduct such screening programs at regular intervals.

Professional Information

The Florida Diabetes Seminar was held on September 26 and 27, in Miami Beach. The Florida Diabetes Association, the University of Miami Medical School, the Post-graduate Education Branch of the University of Florida College of Medicine and the SBH cooperated in the planning and presentation of this professional seminar. Over 125 physicians attended this two-day meeting.

Classes were held for CHD nurses, stressing the importance of diabetes screening, methods of casefinding and patient education. The purpose of the classes was to inform the nurses of the latest techniques of screening and patient education and to review symptoms, treatment and complications. A manual was prepared and distributed on conducting screenings using the Dextrostix and Unopette methods in casefinding programs. This manual was accepted by the Division of Public Health Nursing, SBH, and was made a permanent part of its nursing manual.

Public Education

Societies for diabetic laymen are a most important means of promoting lay and patient educational activities as well as casefinding. During the past year, the Diabetes Control Program staff has assisted the Florida Diabetes Association and its local lay societies in disseminating pertinent information. At the present time there are 14 societies, for diabetic laymen within the state.

Timely Topics, a monthly bulletin for diabetics, is prepared and distributed to over 4000 persons per month. These persons are diabetics, relatives of diabetics, friends of diabetics, or have a genuine interest in diabetes control. The publication represents an economical way to get timely information to the diabetics. Copies are available on request.

Patient Education

A number of CHD's are carrying on fine programs involving patient education. This can be achieved best by a coordinated program co-sponsored by the CHD, the Division of Nutrition, the local medical society, and the local society for diabetic laymen. This approach has been most beneficial to the patients, their families and physicians. There is a definite need for increased diet counseling classes utilizing SBH nutritionists by the CHD's. The standard health pamphlets on diabetes have continued to be quite popular.

TABLE 8

DIABETES SCREENING PROJECT, BROWARD COUNTY, MARCH 1967 – DECEMBER 1968

SCREENING RESULTS	1967	1968	TOTAL
Screening for Diabetes			
Persons screened	4,178	6,121	10,299
Suspects referred for diagnosis	134	109	243
Per cent suspects referred	3.3	1.8	2.4
Physicians' Diagnosis			
New cases	59	37	96
Old cases returned to treatment	32	11	43
Per cent positive referrals	67.9	44.0	57.2
Not diabetes	31	3	34
Per cent Referrals completed	91.0	46.8	71.2
Referrals not completed			
Declined examination	5	7	12
Unable to locate	3	12	15
Others not yet examined	4	39	43

HEARING AID PROGRAM

The 1967 Legislature passed Chapter 67-423, converted to Florida Statutes 468, Part III, entitled, "Fitting and Selling of Hearing Aids Act." Responsibility for implementation of this Act was assigned to this bureau.

The law requires all persons engaged in fitting and selling hearing aids in Florida to register with the SBH and be issued a Certificate of Registration (license), which is to be renewed annually. Individuals not engaged in fitting and selling hearing aids must apply for a Temporary Trainee Certificate and serve a six months apprenticeship under a registrant before becoming eligible. All fitters and sellers of hearing aids must pass a qualifying examination prior to January 1, 1970.

During the first full year in which the law has been in effect, the main objectives for the program have been to issue certificates of registration to those eligible; issue temporary trainee certificates to persons in the trainee program; administer qualifying examinations as required by law; and investigate complaints filed by hearing aid dealers and consumers.

This year 394 individuals were issued Certificates of Registration, and 61 individuals were issued Temporary Trainee Certificates. During the year, two examinations were given to 263 applicants. The total passing the examination was 235, while 28 failed, a passage rate of 89.3 per cent. Six of the individuals taking and passing the examination were trainees under a training program as provided for by the law.

Complaints investigated have been minimal. Most of the complaints filed were those by hearing aid dealers against other dealers. A few consumer complaints have been filed, which indicates that some of the public is aware of the new law.

Goals and objectives for the next year are to continue the registration and examination of hearing aid dealers and trainees; for the protection of the public, continue to investigate complaints pertaining to improper practices; initiate an inspection program of the business establishment of all individual hearing aid fitters and sellers; develop an educational program to inform the public of hearing problems, and what assistance they should seek; and continue to inform the public about the hearing aid law.

HEART DISEASE CONTROL PROGRAM

The problem of cardiovascular renal disease covers several separate and distinct etiological areas. The magnitude of the problem and the public health approach to each are quite different.

The leading causes of death from disease of the vascular system as listed in *1967 Florida Vital Statistics* are arteriosclerotic cardiovascular disease, vascular disease of the central nervous system, hypertensive cardiovascular renal disease, rheumatic heart disease, and congenital heart disease. Current statistics indicate 65.4 per cent of all deaths in Florida are caused by some type of vascular disease.

The greatest community health problem produced by degenerative vascular disease is that of stroke and myocardial infarction in people under 65 years of age. Some idea of the magnitude of the problem may be obtained from the following tabulation:

TABLE 9

DEATH RATES FROM HEART DISEASE FOR AGE 64 AND UNDER; AGE 65 AND OVER, FLORIDA, 1960, 1965 AND 1967

AGE GROUP	1960	1965	1967
Death rate Under 64	125.0	119.1	116.0
Death rate Over 65	2069.1	2102.1	2137.7

The next most important community health problem has been that of rheumatic fever. The great economic advantage of preventing rheumatic heart disease as compared to expensive medical and surgical treatment of chronic valve disease has been recognized and is the basis for the prophylactic treatment program which has been in operation since 1958. Table 10 shows the number of deaths from acute rheumatic fever in Florida from 1950 to 1968 and the number of persons receiving prophylactic drug treatment. Table 11 shows the number of persons receiving prophylactic drugs by age groups.

Congenital heart disease is thought to be the third most serious health problem. The public health approach has been through the Florida Crippled Children's Commission which has treated 1651 cases during 1968.

Community Service Programs

A very effective approach to the prevention of cardiovascular renal disease is that of raising the level of health information in the population. The Heart Disease Control Program attempts to acquaint the public with up-to-date information on all categories of vascular disease. The educational activities of this program are carried out in cooperation with the CHD's, the Florida Heart Association and the State Department of Education. Speakers, audio-visual materials, pamphlets and brochures are provided to all who participate in this educational program. Professional education efforts are directed toward short courses for public health nurses and the Biennial Cardiovascular Seminar for physicians.

Prevention and Early Detection

The prevention of congenital heart disease requires a much more complete knowledge of the causative factors than now exists. The effects of drugs given to a pregnant woman in the first trimester of pregnancy have been emphasized by the recent publicity given to the teratogenic effects of thalidomide. Just how many of the established drugs now on the market are capable of producing developmental defects under certain conditions is not known. For this reason, women in the childbearing age who are susceptible of becoming pregnant are advised to avoid all drugs except those specifically prescribed.

The earliest detection of congenital heart disease is done by the pediatrician or the obstetrician. The medically indigent cases of congenital heart disease are discovered in well baby clinics and also by preschool examinations.

The prevention of rheumatic heart disease involves the prevention of acute rheumatic fever. The detection of rheumatic heart disease is hopefully made by the private physician at the onset of the acute illness. The SBH offers a free streptococcal typing service for the identification of the Group A Beta Hemolytic streptococcus. Penicillin or sulfadiazine is furnished free of charge by the SBH to certified medically indigent patients to prevent the recurrence of acute rheumatic fever.

Prevention of arteriosclerotic disease involves the correction of numerous metabolic abnormalities and alteration of complex traits and habits that begin in childhood. Epidemiological studies have shown that the acute clinical complications, i.e., heart attacks and strokes, can be favorably influenced by diet, exercise and drugs. Prevention of these complications on a community-wide basis demands the identifying of high risk individuals and motivating them to seek prophylactic guidance from their personal physician. Efforts to detect advanced atherosclerosis and its complications have been shown to be related to certain traits and habits termed "risk factors." Screening centers have been established in cooperation with CHD's and local medical societies in Nassau, Baker and Columbia Counties. Other counties are considering this service. High risk people are identified by the presence of these risk factors and referred to their physician for prophylactic treatment. These screening centers are being established only when the full participation of the majority of physicians in the county has been assured.

Treatment

There is no known prophylactic treatment for congenital heart disease at this time. Patients with congenital heart disease are diagnosed and given appropriate surgical treatment through the Florida Crippled Children's Commission. There were 1287 children examined in cardiac diagnostic centers in 1968 and 162 of these were given necessary surgical treatment. A total of 1651 patients with cardiac defects was cared for by this agency and 1300 of these were referrals from CHD's.

Prophylactic treatment to prevent secondary attacks of acute rheumatic fever is carried out under the supervision of personal physicians. A total of 1266 medically indigent patients received free penicillin or sulfadiazine furnished by the SBH.

The treatment of patients discovered in risk factor screening centers is done by the person's private physician. The elimination of categorical funds has caused the closing of some cardiac clinics for the indigent and these patients are now seen in general treatment clinics.

SPECIAL PROJECTS

Jefferson County Multiphasic Screening Program

This pilot project was initiated in 1963 by this bureau in an effort to prove the case for health profile screening. The acceptance and endorsement of the program by the general public and the local physicians is noted in the fact that the Jefferson County health officer has requested the program be continued each year since its initiation.

Since its inception, the program has provided screening examinations to 3975 individuals in Jefferson County. During 1968, 510 persons were screened for a total of 8275 separate tests which produced 1197 test results outside normal limits. The general success of this program has actually provided the bureau with a basis for establishing cardiovascular screening clinics in other counties.

Cardiovascular Screening Programs

Two counties are now actively engaged in cardiovascular screening programs. These screening programs are operated by volunteer workers under the supervision and direction of the CHD. The screening tests involved are a medical history, height and weight, blood pressure and pulse rate, an electrocardiogram, and lab analysis of blood samples.

The Heart Disease Control Program provides orientation and training sessions for workers who staff these clinics and consultation is available on request. The laboratory does the blood analyses and the director of the Heart Disease Control Program interprets the EKG tracings. The reaction of local physicians to the establishment of such screening programs in their area has been quite favorable.

Hypertension Control

The recent cooperative clinical study done by the Veterans Administration has proven so conclusively the value of controlling arterial hypertension in the prevention of stroke, heart attacks and malignant hypertensive renal disease, the SBH has initiated a study to explore the public health methods of attacking this problem on a community-wide basis. The project is funded through a grant from the RMP and is being tried in Holmes, Walton and Washington Counties.

The project was approved by a local RMP committee including the county medical societies, civic clubs, county health officer, nursing association and the county commissioners.

Coronary Care Units

The Florida Heart Association, in cooperation with the SBH, is attempting to develop a computerized bookkeeping system to handle clinical data from coronary care units over the state.

The objectives of this program are: to furnish a standard data form for recording clinical information; to provide clinicians with tabulations of clinical data as they request it; and to serve as a medium of self-evaluation and continued education for those responsible for the operation of coronary and intensive care units.

TABLE 10

DEATHS FROM ACUTE RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE AND PERSONS RECEIVING PROPHYLACTIC PENICILLIN AND SULFADIAZINE THROUGH THE STATE BOARD OF HEALTH, FLORIDA, 1950 – 1968

YEAR	NUMBER OF DEATHS		Persons receiving prophylactic drugs for prevention of secondary attacks
	Acute Rheumatic Fever	Chronic Rheumatic Heart Disease	
1950	26	327	
1951	13	313	
1952	27	337	
1953	19	373	
1954	15	491	
1955	23	332	
1956	18	408	
1957	11	411	
1958	15	481	98
1959	28	448	112
1960	9	502	125
1961	9	461	130
1962	15	460	250
1963	14	456	370
1964	14	479	508
1965	12	467	701
1966	12	483	1211
1967	12	475	1253
1968*	8	589	1266

*I.D.D.A. Changes in 1968 affects comparability with previous years.

TABLE 11

ACUTE RHEUMATIC FEVER PATIENTS RECEIVING PROPHYLACTIC THERAPY TO PREVENT SECONDARY ATTACKS, BY AGE, FLORIDA STATE BOARD OF HEALTH, 1966-1968

AGE GROUP	1966	1967	1968
0-4	11	13	16
5-14	576	572	561
15-24	390	421	435
25-34	91	97	99
35-44	67	74	77
45-54	46	46	47
55-64	23	24	26
65-74	6	5	4
75-84	1	1	1
85+	0	0	0
TOTALS	1211	1253	1266

PREVENTION OF BLINDNESS

The cooperative agreement with the USPHS terminated June 30. Under this agreement five glaucoma screening centers were established. These are located in Broward, Duval, Pinellas, Polk and Volusia Counties. These screening centers are continuing their operation under funds appropriated by the CHD's and community resources. The response has been excellent from residents of these five populous counties. Six full time nurses, trained in the principles and practice of tonometry, perform the actual screening examination under the supervision and direction of local ophthalmologists.

During 1968, 47,320 persons were screened bringing the six year total to 197,037. Of this yearly total 2.28 per cent were referred for diagnostic evaluation.

Summary (April, 1962 — December, 1968)

1. Total screened, all ages	197,037
2. Number referred to ophthalmologists for diagnosis	5,308
3. New cases diagnosed glaucoma	2,325
4. Cases diagnosed borderline	542
5. Diagnosed negative for glaucoma	1,758
6. Suspects being followed	479
7. Lost to follow-up:	
a. cannot locate	56
b. uncooperative	124
c. illness or deceased	24
8. Number persons not able to read 20/40	27,167

TABLE 12

GLAUCOMA SCREENING PROGRAM FLORIDA, 1968

County and Age	Persons Examined	Persons Referred	Per cent Referred
TOTAL	47,320	1077	2.28
COUNTY			
Broward	6979	165	2.36
Duval	16,043	381	2.37
Pinellas	9204	258	2.80
Polk	9918	202	2.04
Volusia	5176	71	1.37
AGE			
Under 35	6415	63	.98
35-44	7114	94	1.27
45-54	8716	185	2.12
55-64	9687	237	2.45
65-74	11,490	368	3.20
75-84	3657	124	3.39
84+	241	6	2.49

The Seminole CHD initiated a glaucoma screening program in October, 1965. A total of 1988 persons have been screened since the program began and 44 (2.21 per cent) persons were diagnosed positive glaucoma by their medical eye doctors.

The screening procedure for glaucoma is easily performed and inexpensive. The treatment usually halts further disability. Many other eye diseases will also be detected and referred for corrective treatment.

School Visual Screening

The Prevention of Blindness Program has provided a consultant to the Comprehensive Child Care Project of the Department of Pediatrics, University of Miami (in cooperation with the Dade County Department of Public Health and the Children's Bureau of the U.S. Department of Health, Education and Welfare). A special pilot project was conducted in 1967 — 1968, during which time 9150 school-age children were screened for visual defects and other ocular abnormalities. Over 2000 children were referred for further evaluation. The facilities of the Bascom Palmer Eye Institute were made available for referral examination and follow-up; 1200 children were examined in this facility. In addition, some 300 referrals have been seen by private eye specialists. The facilities of the Computing Center of the University of Miami are being utilized in a detailed analysis of the accrued data and a report of epidemiologic relevance is anticipated in early 1969.

NEW PROJECTS

Blood-relative Glaucoma Project

A contract proposal has been submitted to the USPHS Regional Office. The project is entitled "A Survey of Blood Relatives of Glaucoma Patients," and will include participation of screening centers in Polk, Volusia, Broward and Pinellas Counties. The objectives of this program are to identify and screen relatives of known glaucoma cases, and to establish the incidence of chronic glaucoma in the family members.

An Additional County Glaucoma Screening Center

Preliminary proceedings are now underway to investigate the establishment of a sixth glaucoma screening center, to be located in a CHD in South Florida.

SMOKING AND HEALTH

The single most important health measure available today for the prevention of disease and premature death in Florida and in the United States is the elimination of cigarette smoking.

An educational program has been outlined by the Florida Committee on Smoking and Health to inform citizens of the effects of cigarette smoking to health, to influence persons not to start, and to encourage discontinuance by those now smoking. The bureau houses the staff and continues to lend support and direction to the committee whose members are: Florida Medical Association; Florida Heart Association; American Cancer Society, Florida Division; Florida Tuberculosis and Respiratory Diseases Association; the State Department of Education and SBH.

The committee serves in an advisory capacity and furnishes consultant services when requested. It does not in any way try to supersede existing programs or active joint committees or to duplicate work being done by other groups.

Smoking and Health cuts across all agency programs, thereby making it an ideal project for community action. Some 22 countywide committees have been established with other counties conducting some type of program through their school, CHD or civic organizations.

The local councils have had many programs, such as Smoking and Health teacher and youth conferences, school assembly programs, fair exhibits, adult informational programs, establishment of reference files in community and school libraries, programs over educational television, and preparation or distribution of spot announcements to commercial broadcast stations. Councils have encouraged dentists, physicians, hospitals and CHD's to permit no smoking in patient waiting or clinic areas and have provided signs free to those participating. These interagency councils are most effective and by giving continued support and effort to the smoking problem have greatly assisted in the total educational effort.

The Florida Committee has assisted in the coordination of the State P-TA Smoking and Health Project and in P-TA Leadership Conferences. The committee has exhibited at various state meetings, worked with health coordinators and at youth conferences. Continued support of new school accreditation standards has resulted in a required semester of health education at junior high and a semester at senior high level. The Fifth and Sixth Grade Teacher's Guide on Smoking and Health and other materials have been mailed to each school.

A major program for the year has been the planning and hosting of a Tri-Regional Conference on Smoking and Health. Some 150 persons from 35 various states participated in an informational-motivational working conference. The knowledgeable faculty and the exchange of ideas among leaders in Smoking and Health activities from throughout the nation resulted in a most outstanding and profitable conference.

The Florida Committee is looking to the future in hopes of providing more information through local committees to more people who desire to know of the harmful effects of smoking. The providing of guidance to those who wish to stop smoking and service to those communities capable of conducting their own programs are aspirations of the state committee.

BUREAU OF DENTAL HEALTH

DELMAR R. MILLER, D.D.S., M.P.H.
Director (to July)

DERL G. STALLARD, D.M.D.
Acting Director (from July)

The function of the bureau is to promote improvement in dental health for all citizens of the state by carrying on programs designed to increase dissemination of dental health educational information and utilization of preventive and corrective dental services. Consultation on each of these areas is provided to county health departments (CHD), county school systems, colleges, universities, dental organizations, civic groups, community action groups, parent-teacher organizations and to other bureaus and divisions.

DENTAL PRECEPTORSHIP PROGRAM

In 1957, the State Board of Health (SBH) in cooperation with the Florida Dental Association and Florida State Board of Dentistry established the dental preceptorship program whereby recent dental graduates, upon the approval of the dental board and its issuing a dental permit, could practice in public health clinics for a period of one year. The "preceptee" dentists would be jointly supervised by this bureau, a committee of local dentists and the director of the CHD in which they were employed.

During the year, dental preceptees served in the following counties: Alachua, Broward, Charlotte, Collier, Dade, DeSoto, Duval, Hardee, Lake, Lee, Manatee, Marion, Palm Beach, Polk, Sarasota, Seminole and Volusia. In addition, a dental preceptee was utilized in the Jacksonville City Health Department.

The future of the program is presently in question since the Florida State Board of Dentistry has elected to discontinue it. This program which served the state for over 10 years — from the days when many dental clinics were standing idle due to lack of dentists — now faces the possibility of returning to those days.

DENTAL SCHOLARSHIP PROGRAM

The Dental Scholarship Law, as amended in 1967, provides for only five dental scholarships each year with an annual stipend of

$2000 for up to four years. Each recipient of a dental scholarship is required to practice in an "area of need" designated by the SBH one year for each year of scholarship received, or participate in the state's public health dental program on the same basis.

A total of 130 scholarships have been awarded since the beginning of the program in 1955, five of which were declined prior to utilization. During the year, 31 scholarship students were attending 11 dental schools. Of these, nine graduated during the year and one discontinued use of scholarship funds.

Disposition of scholarship graduates to date:

Completed compensatory practice	28
Serving in "areas of need"	13
Repaid in full	31
Repaying stipend	4
In military service	8
Florida licensed — obligated to repay	4
Obligated to repay — not qualified for Florida licensure	6
TOTAL	94

DENTAL CLINICS

Counties served by full-time licensed public health dentists were Brevard, Dade, Duval, Escambia, Highlands, Glades, Hendry, Hillsborough, Jackson, Liberty, Orange, Palm Beach, St. Johns, Santa Rosa, Sarasota, Seminole and Pinellas.

One of the two mobile dental clinics maintained by the bureau to serve eligible school children in areas having few or no practicing dentists was staffed for approximately three months during 1968. More than 325 patient visits were made to this mobile clinic. Treatment included 176 extractions, 199 fillings and 13 prophylaxes.

Since it has become increasingly difficult in recent years to attract qualified dentists to operate the mobile dental clinics, the decision was made to assign the equipment in these clinics to CHDs where it could be used more effectively.

ORAL CANCER DIAGNOSIS PROJECT

This program was initiated in 1964, with grant support from the U.S. Public Health Service. Because it has continued to receive increasing support and participation by the dental profession, the supporting grant was extended beyond the original three-year period to July, 1968.

During the year, 233 biopsies and 150 smears were submitted for examination. Eight of the biopsies and four of the smears submitted were diagnosed as positive for cancer. Dentists continue to use the oral cytology smear technique even though the program under the grant has been discontinued.

LACTOBACILLUS PROGRAM

In 1968, dentists throughout the state continued to use the state laboratories for analyzing saliva specimen to determine the caries susceptibility index of patients. There were 2097 lactobacillus kits requested by participating dentists. The laboratory analyzed 1442 specimen. This program has been in operation since 1955 and is a joint endeavor between this bureau and the Bureau of Laboratories.

CONSULTATION SERVICE

Although the bureau staff was decreased during the past year, the staff members, including the dental hygienist, health educator, and two dentists had a full schedule of field visits.

As in previous years, the dental hygienist continued to conduct dental health programs in various elementary schools and a number of day-care centers throughout the state. In each of these programs, a lecture on proper dental hygiene procedures and diet were presented, along with toothbrushing demonstrations and the showing of a dental health film.

Although most of the programs were conducted for the elementary grades, some were presented to the junior and high school age groups. In these instances, not only proper dental hygiene, but the many dental career opportunities were discussed. The dental hygienist assisted the dental director in making dental inspections of approximately 2500 elementary school children in several counties.

The health educator continued to provide consultative services to CHDs, county school systems, universities, colleges, dental organizations, civic groups, and PTAs, in an effort to promote dental health education.

Preschool workshop consultation was given in 14 counties at the request of the Florida State Department of Education. Also, in-service programs for public health nurses were conducted in two counties.

Continued efforts in the recruitment of future dental personnel was made by participation in a number of career day programs.

Both the health educator and dental hygienist served as representatives of the SBH in the annual Health Project in Teacher Education at the University of Florida and Bethune-Cookman University.

BUREAU OF ENTOMOLOGY

J.A. MULRENNAN, B.S.A.
Director

The major activities of this bureau are administration of the state aid arthropod control program involving 58 counties and mosquito districts; supervision of the Entomological Research Center in Vero Beach, West Florida Arthropod Research Laboratory in Panama City, and Midge Research Laboratory in Winter Haven; operation of the arthropod identification laboratory in Jacksonville; administration of the Pest Control Act, including enforcement of its provisions; operation of an encephalitis surveillance program; and technical supervision of the federally financed and supervised *Aedes aegypti* Eradication Project in Florida until late October, 1968 when the program was phased out.

The *A. aegypti* Eradication Project was discontinued because Congress had to make drastic reductions in expenditures before the President's requested 10 per cent surtax on income taxes could be enacted. The objective of the program had been attained in 20 counties, and work was in progress in other counties. State contract funds expended through the phasing out period in calendar year 1968 amounted to $2,397,448; federal funds of approximately $1,283,000 provided personnel services, rental of equipment, travel, supplies and insecticide. Total funds through this period amounted to about $3,680,448.

ARTHROPOD CONTROL

General

As of October 1, 1968, the city limits of Jacksonville were expanded to include practically all of Duval County. Among the many changes made by law was the abolishment of the Northeast Duval County and the East Duval County Mosquito Control Districts. These districts and the City of Jacksonville mosquito control program were amalgamated into one unit, which is now called Jacksonville Mosquito Control. Responsibility for supervision and direction was vested in Edward R. Smith, M.D., chief, Public Health Division, City of Jacksonville.

The consolidation of these districts decreased the number of counties and mosquito districts participating in the state aid program from 58 to 57 on October 1, 1968. The total amount of local funds budgeted for the fiscal year ending September 30, 1969 was $7,225,658, an increase of $676,973 over the previous fiscal year. The total reported local fund expenditures for the fiscal year ending September 30, 1968 were $6,161,284, and state fund expenditures were $1,717,830, a total of $7,879,114. The state matching rate was 14.50 per cent for State II funds.

On July 1, 1968 the budget commission released the three per cent which had been withheld from all state budgets, so that the full $1,650,000 was made available to counties and districts in fiscal year 1967 – 1968.

Counties Participating and Local Fund Budgets

Counties participating in the State Arthropod Control program in 1968 and the amounts of local funds budgeted by these counties and/or districts for the fiscal year October 1, 1968 through September 30, 1969 follow:

COUNTY	LOCAL FUNDS*	COUNTY	LOCAL FUNDS*
Alachua	$ 37,056	Brevard	$459,916
Bay (Comm.)	125,600	Broward	130,438
Bay (Gulf)	63,938	Charlotte	116,199
Bradford	18,863	Citrus	145,314
Collier	310,966	Manatee	162,005
Columbia	15,500	Marion	42,200
Dade	276,292	Martin	55,914
(Duval) Jax.	492,526	Monroe	337,842
Escambia	178,580	Nassau	63,700
Flagler	17,150	Okaloosa	52,869
Franklin	15,000	Indian River	155,349
Gadsden	17,460	Jackson	4,847
Gulf	57,500	Jefferson	10,478
Hardee	4,000	Lake	118,000
Hendry	7,999	Lee (District)	674,104
Hernando	37,047	Lee (Beach)	95,226
Highlands	4,829	Leon	75,779
Hillsborough	415,162	Levy	20,000
Holmes	4,925	Madison	550

Counties Participating and Local Budgets (Continued)

COUNTY	LOCAL FUNDS*	COUNTY	LOCAL FUNDS*
Orange	218,861	Suwannee	23,000
Osceola	56,400	Taylor	21,600
Palm Beach	351,836	Volusia	390,954
Pasco (West)	107,926	Wakulla	21,000
Pinellas	365,384	Walton	8,700
Polk	314,627	Walton (South)	28,258
Putnam	35,300	Washington	2,700
St. Johns	101,591		
St. Lucie	150,104	TOTAL	$7,225,658
Santa Rosa	69,000		
Sarasota	98,934		
Seminole	38,360		

*Net amount budgeted.

Total Local Funds Budgeted	$7,225,658
Total State Funds Appropriated	1,650,000**
TOTAL FUNDS FOR ARTHROPOD CONTROL	$8,875,658

**Based on the anticipated appropriation.

Source Reduction Accomplishments

Diking — Volusia and Brevard Counties are the only counties constructing any substantial amount of new dikes. Work in Indian River, St. Lucie, and Martin Counties has been principally maintenance of existing dikes.

The work in the Tomoka Marsh in Volusia County is about 90 per cent complete. Water control structures are planned for installation in fiscal year 1968 – 1969.

Diking	1967	1968
Number of counties participating	5	5
Miles of dikes constructed or rebuilt . . .	52.42	31.38
Cubic yards earth placed in dikes	956,566	671,206
Total field cost	$86,600	$67,740
Field cost per cubic yard	$ 0.091	$ 0.101

Machine Ditching and Maintenance – The construction of new ditches continues to decrease, as the point has been reached in several counties where maintenance of ditches previously constructed requires all available heavy equipment. In many counties operating sanitary landfills, the dragline time is used almost entirely on landfill operations and ditch maintenance. Funds generally are not available to purchase all of the heavy equipment needed in a county or district.

Machine Ditching and Maintenance	1967	1968
Number of counties participating	37	38
Miles of ditches dug or maintained	446.61	410.93
Cubic yards earth excavated	3,794,626	3,178,814
Total field cost	$625,185	$580,940
Field cost per cubic yard	$ 0.165	$ 0.183

Grading, Deepening and Filling – Heavy equipment is used to alter the topography of mosquito breeding areas through filling, or deepening and filling, when drainage is not feasible. Volusia County continues to have numerous areas where this type of control is used. A lesser amount is done in some other counties.

Grading, Deepening, and Filling	1967	1968
Number of counties participating	2	1
Acres mosquito breeding area improved	74.48	37.64
Average field cost per acre	$114.51	$180.46

Sanitary Landfills – The amount of garbage and rubbish to be disposed of continues to increase, requiring more landfills and expenditures of the county's or district's funds for this purpose.

On July 1, 1968, the federally-financed composting plant constructed in Gainesville began accepting all garbage generated in Gainesville and its suburbs. Alachua County discontinued operating a sanitary landfill for the city of Gainesville as of this date, and the city purchased the landfill tractor from the county for $20,000. During the remainder of the year the tractor was used frequently to bury material which could not be composted, as well as some composted material which could not be otherwise disposed of.

The following is a summary of sanitary landfill operations by counties and districts that are participating in the state aid program:

Sanitary Landfills	1967	1968
Number of counties operating landfills	41	40
Total number of landfill sites operated	175	179
Total field costs in all counties	$864,028	$1,001,961
Cubic yards of garbage buried	8,576,457	9,879,378
Field cost per cubic yard	$ 0.101	$ 0.101

Temporary Control Measures

Temporary control measures are the application of insecticides or related chemicals for temporarily controlling arthropods in the larval and adult stages. Thermal aerosol fogs are applied by both ground equipment and fixed wing aircraft, and wet sprays or ultra low volume mists are applied by aircraft for the control of adult mosquitoes and midges.

Fuel oil mixed with a spreading agent and/or Paris green granules are used in larviciding for the control of mosquitoes in the larval stage.

Dade, Broward, Palm Beach, East Duval, Indian River, and Pinellas Counties performed mosquito control work by contract aircraft in 1968. Brevard, Volusia, Northeast Duval, Polk, Hillsborough, Lee, Collier, Monroe, and Osceola Counties carried out their aircraft control work with their own airplanes and helicopters.

Volusia County purchased a Bell helicopter to replace the one destroyed in 1967. Northeast Duval owns and operates a Hughes helicopter. Brevard, Lee, and Monroe Counties use helicopters obtained by leasing.

The following is a summary of temporary control work accomplished during the year by counties and mosquito control districts:

Adulticiding — Ground Fogging	1967	1968
Number of counties participating	53	53
Number of hours fog machines operated	48,363	44,770
Number of miles fogged	324,912	305,429
Gallons of insecticidal formulation used	2,538,641	2,478,454
Total field cost	$1,176,602	$1,144,275
Average cost per mile for fogging	$3.62	$3.75

Adulticiding with Aircraft

Fogging with malathion	1968
Number of counties participating	5
Gallons of malathion formulation applied as fog	145,182
Pounds of (actual) malathion in formulations	152,570
Number of acres fogged	1,231,083
Average application rate (lbs. malathion per acre)	0.1239

Spraying with malathion	1968
Number of counties participating	2
Gallons of malathion formulation sprayed	43,555
Pounds of malathion in formulations	13,362
Number of acres sprayed	75,036
Average application rate (lbs. malathion per acre)	0.1781

Fogging with naled (Dibrom 14)	1968
Number of counties participating	2
Gallons of naled formulation applied as fog	63,944
Pounds of naled in formulations	12,270
Number of acres sprayed	118,865
Average application rate (lbs. naled per acre)	0.1032

Spraying with naled (Dibrom 14)	1968
Number of counties participating	5
Gallons of naled formulation sprayed	67,940
Pounds of naled in formulations	14,435
Number of acres sprayed	118,865
Average application rate (lbs. naled per acre)	0.1214

Ultra Low Volume Misting with naled (Dibrom 14)	1968
Number of counties participating	5
Gallons of Dibrom (85% naled) applied	345
Pounds of naled applied	4,106
Number of acres treated	73,328
Average application rate (lbs. naled per acre)	0.0560

Fogging with Baytex	1968
Number of counties participating	3
Gallons of Baytex formulation applied as fog	73,509
Pounds of active ingredient in formulations	16,008
Number of acres fogged	574,514
Average application rate (lbs. A.1. per acre)	0.0278

Spraying with BHC (1.0 lb. gamma/gal.)	1968
Number of counties participating	1
Gallons of BHC formulation sprayed	20,012
Pounds of BHC gamma in formulations	3,302
Number of acres sprayed	10,006
Average application rate (lbs. BHC gamma per acre)	0.330

Larviciding with Aircraft	1968
Spraying with diesel oil containing spreader	
Number of counties participating	5
Gallons of Diesel oil sprayed	81,539
Number of acres sprayed	9,454
Average application rate (gals. per acre)	8.62

Larviciding with Paris green granules	1968
Number of counties participating	9
Pounds of Paris green granules applied	1,143,121
Pounds of technical grade Paris green in granules	76,401
Number of acres treated	72,054
Average application rate (lbs. Paris green per acre)	1.060

Dog Fly Control

This type of control work is limited to the counties west of Wakulla County that border on the Gulf of Mexico and its embayments. The participating counties are Franklin, Gulf, Bay, Walton, Okaloosa, Santa Rosa, and Escambia. Control consists in spraying the green and decaying marine grass deposits that are stranded on the bay shoreline with DDT at approximately two-week intervals during the summer and early fall months. Despite intensive inspection and control work, almost every year there have been one or two localized and unexplainable outbreaks of dog flies along the beaches. The research staff of the West Florida Research Laboratory in 1968 located heretofore unknown breeding areas in inland lakes in Bay and Gulf Counties. These lakes, no doubt, contributed substantially to the outbreaks. Control procedures were immediately instigated in these areas.

The following is a summary of the dog fly control work performed by the seven counties:

	1967	*1968*
Total miles of shoreline treated	1,487	1,288
Number of man-hours for inspection & treatment	9,727	6,616
Gallons of 35% DDT concentrate used	6,084	2,050
Average labor cost per mile	$10.03	$ 9.11

Engineering

The engineering section received and checked for accuracy approximately 200 reports each month from the counties and mosquito districts and analyzed the county's or district's activities based on their reports. These reports were subsequently tabulated into a statewide total by particular activities.

Assistance was given counties and districts in the preparation of work plans and budgets; review and approval of same; preparation of specifications for purchase of equipment; review of program application in the field; inspection of areas proposed for permanent control measures; and approval of plans. Field investigations of proposed sites for large scale landfill operations were made in Pinellas and Palm Beach Counties, and the locations subsequently approved.

REGIONAL ENTOMOLOGISTS

Five regional entomologists are stationed throughout the state and assist counties and mosquito districts within their respective areas in all phases of their program application and administration. A considerable portion of each entomologist's time, with the exception of the northeast Florida area, is devoted to enforcement of the Pest Control law.

The entomologist stationed in Orlando for many years was replaced, and the regional office moved to Winter Haven. This change in personnel caused some loss of accomplishments temporarily, but resulted in more work being done as the successor became more familiar with his territory and job requirements.

ARTHROPOD IDENTIFICATION LABORATORY

The laboratory identified 390,925 adult mosquitoes, captured in light traps run twice weekly at 94 locations throughout the state. "The Florida Salt Marsh Mosquitogram," showing the number of female salt marsh mosquitoes caught in 43 light traps located in 29 coastal counties, was prepared and mailed each week to mosquito districts and other interested persons.

In the continuing program of encephalitis surveillance, the laboratory identified 94,706 live mosquitoes from over 800 collections, placing them in 1439 pools to be tested for virus isolations by the State Board of Health virus laboratory in Jacksonville. This surveillance study yields useful information on the prevalence and the seasonal and geographical distributions of the different viruses and their host mosquitoes. Only 534 of the 1439 pools had been tested by the end of the year, yielding a single positive: Shark River virus from *Culex (Melaniconian)* spp. collected in Dade County, east of Black Creek Canal. Table 13 shows the revised results of virus isolations from 1967 collections.

TABLE 13
ARTHROPOD-BORNE VIRUS ISOLATIONS FROM MOSQUITOES, FLORIDA JANUARY 1, 1967 THROUGH DECEMBER 31, 1967*

POSITIVE MOSQUITO SPECIES	COUNTIES WITH VIRUS ISOLATIONS											
	Charlotte	Franklin	Hardee	Jefferson	Leon	Levy	Madison	Orange	Polk	Walton	Wakulla	Total Positive pools
An. crucians	1(B)		1(B)	2(B)					2(B)			6
M. perturbans						1(E)						1
A. atlanticus				1(C) 1(E)				1(B)		1(C)		4
A. taeniorhynchus	1(C)											1
Cs. melanura		1(E)		1(E) 1(W)	1(HP)		1 (E) 1(HP)					6
P. ferox											1(C)	1
Total positive pools	2	1	1	6	1	1	2	1	2	1	1	19

Total pools tested: 1077

Letters designate type of positive pool:
B = Bunyamwera Group (7 positives)
C = California Group (4 positives)
E = Eastern Encephalitis (5 positives)
H = Hart Park virus (2 positives)
W = Western Encephalitis (1 positive)

*Because there was only one isolation in 1968 (see page 73), no table for that year will be published.

These are included, because testing was not complete at the time the 1967 annual report was prepared.

In addition, the laboratory identified approximately 25 different insects for county health departments, pest control operators, and private citizens.

MIDGE STUDIES

A study of the chironomid fauna of the state was continued under a National Institutes of Health grant during 1968. Twenty-two collections containing over 2100 live midge larvae were brought into the laboratory from streams and lakes in 12 counties. From these collections 566 adults were reared, yielding new information on the life history and ecology of each species. One paper was published with the support of this grant, and a second paper, dealing with the nuisance species of chironomids in Florida, will appear early in 1969.

Over 100 adult chironomid midges were also identified to species for the mosquito control districts and for the Midge Research Station at Winter Haven.

PEST CONTROL

For the 21st consecutive year the bureau carried out its responsibility of service to the public and the commercial pest control industry, as defined under the Pest Control Act, Chapter 482 Florida Statutes, and regulations, Chapter 1401-2 FAC.

Two entomologists working on a state-wide basis and assisted by the regional entomologists stationed in Miami, Tampa, Winter Haven, and Panama City investigated complaints of 116 homeowners pertaining to pest control companies or individuals. Continuous checking on persons or companies engaged in pest control activities is one of the many services performed for the protection of the citizens and also the licensed pest control operators. Forty-five unlicensed pest control operators were found, and 14 warrants for arrest were filed. Twenty-one letters of warning were issued to unlicensed operators, resulting in either a license being obtained, discontinuing pest control operations, or subsequently arrests for violation of the law.

Over 800 licenses and over 5100 employee identification cards were issued to the pest control industry. Total fees collected

TABLE 14
SUMMARY OF PEST CONTROL REGISTRATION AND ENFORCEMENT FLORIDA, 1964-68

REGISTRATION	1964	1965	1966	1967	1968
State Board of Health Licenses issued	329	338	876**	835**	802
State Board of Health Change of Address Licenses issued	44	41	31	58	53
State Board of Health Licenses revoked*	1	0	0	4	3
State Board of Health Licenses placed on probation*	3	2	2	1	3
Pest Control Certificates revoked, suspended or placed on probation*	3	2	9	6	10
Employees' Identification Cards issued	3,588	3,910	4,968**	4,904**	5,104
Employees' Change of Address Identification Cards issued	237	283	179	180	160
Employees' Identification Cards revoked or stopped*	10	12	3	98	19
Employees' Identification Cards on probation*	2	2	1	29	16
Thermal-Aerosol Certificates of Authorization renewed*	6	5	4	3	4
ENFORCEMENT					
Homeowner complaints investigated	83	92	87	127	116
Unlicensed illegal pest control operators investigated	19	31	49	58	45
Warrants filed against unlicensed operators	9	6	6	8	14
Letters of warning issued to unlicensed operators	9	14	29	31	21
Enforcement miles traveled (Jacksonville office only)	18,608	19,427	27,137	33,130	36,412
"Notices of Inspection" citing violations issued				138	184

*By Pest Control Commission of Florida.
**Revised from 1966 and 1967 annual reports.

Licenses, identification cards and thermal-aerosol certificates issued are based on 1967-68 licensing year. All other entries are based on calendar year 1968.

for deposit in the state general revenue fund for the licensing year was $27,089. This compares with $26,166 for the previous year.

The Pest Control Commission recorded 1049 certificates in force and good standing and issued 36 new certificates in 1968.

ENTOMOLOGICAL RESEARCH CENTER

The mission of this institution is to investigate the biology and vectoring characteristics of mosquitoes and other biting flies. Nevertheless, this mission is unique enough that investigators and operators in the control of mosquito-borne diseases from all over the world visit the center as a depository of the most advanced knowledge in the biology of medically important insects. In 1968 there was an unusually large number of visitors, and more than ever, they came for prolonged stays and in sizable groups, such as those organized by the World Health Organization. Also in 1968 the director had an opportunity to visit several of the better-known European centers of research in medical entomology, in connection with a trip to attend the 13th International Congress of Entomology in Moscow, assisted by a travel grant from the Entomological Society of America. It was reassuring to learn that in these laboratories, the work going on in Vero Beach was indeed well known and appreciated.

In recent years, research has been organized into eight major projects. These were described and elaborated upon in the Annual Reports for 1966 and 1967. They are all long-term studies, where truly notable advances cannot be expected consistently on a year-to-year basis. The following accounts will, therefore, be briefer than those of the past two years, which may be referred to for background.

PROJECT I: BITING CHARACTERISTICS

A histological technique for determining the presence of multiple blood meals was further developed and the collection of wild *Culex nigripalpus* for sectioning and evaluation was started. The capacity of this mosquito to immediately refeed, if repeatedly interrupted while in the act of probing or feeding, was investigated. Individuals having more than one-half of a complete blood meal were still persistent in their attempt to refeed under conditions where they were confined near the host. The problem of multiple feeding by mosquitoes is important to the epidemiology of mosquito-borne disease, since vectoring capacity is necessarily proportional to numbers of hosts bitten by the same mosquito.

The second phase of this project was initiated this year, viz. studies of interactions between certain mosquito species and potential blood hosts in large mosquito-proof aviaries. A pilot, pre-fabricated, sectional aviary was designed and built, and preliminary work has already proved the feasibility of such studies. Thus a pioneering investigation showed that different heron species react differently to mosquito attack, apparently with direct influence on the success of the mosquitoes trying to obtain a blood meal.

PROJECT 2: POPULATION DYNAMICS

In 1968 the voluminous data from a three-year study of the relationship of mosquito sampling methods to the age and physiological state of the mosquitoes were completed and prepared for analysis. The latter was begun by the Department of Statistics and the Computer Center at the University of Florida, under supplementary support from the National Institutes of Health.

During 1968, the leased Neville swamp was prepared for studies of flight pathways in *Culiseta melanura* and *Culex nigripalpus* (and other spp.), and the investigation itself was begun. The edges of the swamp were sharply defined by clearing, and over 1200 feet of boardwalks were installed to give easy access into the swamp without disturbing it. Weather stations were established inside and outside the dense swamp. Twenty-five suction traps, each powered by 24-inch fans, were installed. Forty large container-grown shrubs (for mobility in experimental design) were prepared. A 50-foot trailer, with electricity and water, serves as a field laboratory, close to the swamp. Preliminary review of one year's data revealed no evidence that the edge of the swamp acted as a barrier to flight for either swamp or outside breeders. Studies with mobile shrubs are already giving clues to distinct flight pathways.

PROJECT 3: DISPERSAL CHARACTERISTICS

Emphasis was shifted to the biology of the most important sandfly in Florida, *Culicoides furens.* It was successfully colonized, — a major breakthrough. Field study and collections also demonstrated the species, at least in the Vero Beach area, to be entirely autogenous, i.e., able to mature a first egg batch without a blood meal. The seasonal pattern of productivity was also investigated.

PROJECT 4: COMPARATIVE BIOLOGY

To explain the apparent restriction of *Aedes taeniorhynchus* breeding to salt-marsh habitats, the possibility that gravid females might be oriented by air-borne salt was investigated by exposing panels of cheesecloth at different distances inland from the brackish water of the Indian River. It was found that generally decreasing amounts of salt were deposited on the panels up to 3.3 miles from the river.

A study of the sources of carbohydrate food of mosquitoes was begun with the identification of over 150 plants, observations of their flowering periods, and investigation of their nectar-secreting capacities. Honeydew production by Homopterous insects, abundant in Florida and also used by mosquitoes, was studied in field and laboratory.

A monograph was prepared summarizing all known observations and information on the natural history of *Culex nigripalpus.*

PROJECT 5: REPRODUCTION

The interplay between MNC (medial neurosecretory cells, in brain) and corpora allata hormones and the maturation of ovaries in autogenous and an-autogenous mosquitoes was greatly elucidated this year as a result of an exhaustive study of the corpus cardiacum, a hormone-storage organ whose activity apparently determines whether or not a blood meal is necessary to the promotion of egg growth. It took much careful histology and electron microscopy to settle this vital issue.

PROJECT 6: GROWTH

A detailed study of environmental factors in the production of synchronous development in 12 mosquito species in addition to *Aedes taeniorhynchus* and *Culex nigripalpus* (see previous annual reports) showed that pupation could not be synchronized in *A. triseriatus* and *C. salinarius.* In *C. bahamensis* lessened food synchronized development in contrast to increased food necessary in *A. taeniorhynchus, A. sollicitans, C. nigripalpus, Psorophora confinnis* and *P. ferox.* Higher larval densities synchronized development in *A. infirmatus* and *A. vexans,* whereas lower salinities and higher temperatures synchronized development in almost all the species studied. Light cycles aided synchronization in only 5 species: *A. taeniorhynchus, A. sollicitans, A. crucians bradleyi, C. bahamensis* and *P. confinnis.*

Further evidence was established that larval density affects not only aggregation behavior but adult behavior in *A. taeniorhynchus.* The controlled production of migratory and non-migratory phases in this mosquito appears feasible, as in certain locusts and other insects.

During the year a highly insulated, specially designed 12 by 12 foot building was erected to house the several cages in which spontaneous flight is recorded acoustically through electronic apparatus. Early use of these sound-recording cages demonstrated their tremendous possibilities in the study of spontaneous flying in the lifetime of a mosquito as affected by age, physiological state, environmental conditions, and so on.

PROJECT 7: METABOLISM

Studies of the pathways between dietary hexoses and their products showed that glucose is not an intermediate between fructose mannose or galactose and the products trehalose and glycogen.

The polyalcohol sorbitol, on which many nectar-feeding insects can be maintained, enters the metabolic chain as fructose, not glucose.

The recent finding of saccharidases other than trehalose in the hemolymph of the mosquito and other insects led in 1968 to the discovery of trehalose and maltose in the serum and kidney of many vertebrates, including man. The diagnostic potential of these findings will be explored, both clinically and experimentally.

PROJECT 8: BIOLOGY OF LARVIVOROUS FISHES

A many-sided study of the biology of the salt-marsh mosquito-eating fish, *Rivulus marmoratus,* has been emphasized, because alone among fishes it has proved to be naturally self-fertilizing and alone among vertebrates to exist naturally in the wild in the homozygous state, viz. having two identical sets of genes.

Effects on the fish fauna and on the productivity of fish food organisms are being assessed before and after impoundment of salt marshes for mosquito control. These conditions after prolonged impoundment are being evaluated by comparing specimens collected nine to ten years apart in the same impoundment.

A preliminary study of such conditions is being made in a fresh-water flooded Maple-Bay swamp, currently under study with regard to the biology of potential vectors of of arboviruses.

WEST FLORIDA ARTHROPOD RESEARCH LABORATORY

The function of this laboratory is to develop through research effective control methods for insects of public health importance. The research program is divided into two sections, Mosquito Control and Biting Flies. The Biting Flies section also conducts biological studies of some insects, especially the dog fly, *Stomoxys calcitrans (L.).*

Results of the research program are translated into practicable recommedations which are distributed in memorandum form to all arthropod control districts of Florida. Accomplishments during 1968 and plans for 1969 are outlined in the remainder of this report.

MOSQUITO CONTROL SECTION

Aerial Adulticide Studies

Studies of ultra low volume aerial sprays (ULV) for the control of the salt-marsh mosquito, *Aedes taeniorhynchus,* and *Culex nigripalpus,* a vector of encephalitis, were continued during 1968. The test plot was 132 acres, having a sparse cover of planted pines and scrub oak about four feet high and no tree canopy. Because of rather poor results with four fluid ounces per acre during 1967, the volume was increased to 16 fluid ounces per acre. At this rate, considerably better kills of caged adult mosquitoes were obtained. This research also included a study of the effects of cage type, height above ground and distance downwind of the caged test mosquitoes from the sprayed area. The number, and in some cases the size, of droplets deposited was assessed by the use of dye cards and slides coated with magnesium oxide. Results showed no difference in kill between flat cages (eight inches in diameter and one inch thick) and cylindrical cages (three inches in diameter and six inches high), but the height at which the cage was placed above ground and the position of the flat cage, whether vertical or horizontal, was of great importance. Considerably poorer kill of mosquitoes was obtained in cages placed close to the ground in either the horizontal or vertical position than at six feet above ground, and less kill was obtained in the flat cages placed in a horizontal position than cages placed vertically at six feet above ground. Also, a greater number of droplets was obtained on dye cards placed vertically at six feet than at any of the other heights or positions. These data indicate a horizontal movement of spray droplets above the low vegetation in the test area. This is of importance because the species of mosquitoes used in these tests rest on or near the ground during daylight hours, the time at which aerial sprays are usually applied. It was further demonstrated that the small droplets in the spray drift a long distance from the point of application. Good kill of caged mosquitoes was obtained at 2000 feet downwind from the sprayed area at a height of 15 feet, but kill at ground level was very poor at this distance, showing that the ultra small droplets do not deposit well at ground level.

From these studies, it is evident that many factors must be considered in research of this type. Refinements in application techniques dealing with swath, altitude, nozzle size, droplet size, and volume of spray applied still need to be explored further. However, it is expected that a recommendation of aerial ULV for control of the above species in open or residential areas can be made in 1969.

Ground Adulticide Studies

Tests of insecticides for the control of adult mosquitoes by the use of ground thermal aerosol generators is a continuing program. As in 1967, the 1968 tests included Dursban and Baygon. Although good results were obtained with these insecticides during 1967, very erratic results were obtained in 1968. Further testing is needed before recommendations for their use can be made. Tests of dosage rates 20 per cent above the recommended dosages of malathion, naled and fenthion were initiated during 1968 and will be continued during 1969. The object of these tests is to develop a more reliable operation for good mosquito kill under adverse environmental conditions.

Laboratory Adulticide Studies

Tests of potential new adulticides for use as ground thermal aerosols are carried out in the laboratory prior to field testing. Completion of tests begun in 1967 with Bromophos showed that this insecticide has no value as a thermal aerosol for the control of adult *Aedes taeniorhynchus* or *Culex nigripalpus*. In preliminary tests, new insecticide CIBA-9491 also showed little promise.

Insecticide Resistance Surveillance Program

As in previous years mosquitoes were collected from various sections of the state and tested to determine their susceptibility to malathion and dibrom. No new areas of resistance were discovered, and for the third year in succession *Aedes taeniorhynchus* from previously resistant areas in Lee County continued to show an increase in their susceptibility to malathion.

In order to eliminate variations in test procedures and obtain more reproducible results, a study of the factors affecting laboratory larval tests was initiated in 1968. This study showed that the temperature and salinity of the testing water and type of test vessel (paper, plastic or glass) may greatly affect the results obtained with the standard World Health Organization test procedures. With the utilization of this knowledge it is expected that future tests can be more standardized, which in turn should produce more reliable results.

Larvicide Studies

Since development by personnel of this laboratory in 1957 of a granular formulation of Paris green for control of mosquito larvae, some of the materials used in this larvicide have been modified or discontinued; therefore, it has been necessary to maintain a study program for evaluation of various ingredients used in the formulation. This procedure is required for quality control in this larvicide, which has received broad acceptance for control of both resistant and non-resistant mosquitoes in Florida and other states.

Since some of the more useful oils originally used in the formulation have been discontinued by the producer, several new oils were tested during 1968. Two spray oils that gave satisfactory results in these tests are Standard Oil Company No. 341+ and FAXAM40 (Formula No. 1305) produced by Humble Oil and Refining Company. In storage tests of the formulated larvicide, the No. 341+ oil performed especially well for more than six months, which is adequate time to assure satisfactory overwinter storage of granular Paris green manufactured in the fall.

A cooperative project for the testing of the effects of granular Paris green on desirable marine organisms was conducted in cooperation with the Biological Field Station, U.S. Fish and Wildlife Service, at Gulf Breeze, Florida. This laboratory furnished the insecticide, and the Gulf Breeze laboratory conducted the study.

Populations of grass shrimp, *Palaemonetes pugio*, and a fish, *Ciprinodon variegatus*, were established in shallow, saline ditches adjacent to Santa Rosa Sound. Treatments of 15 pounds per acre of 5 per cent Paris green were made in the plots containing the test organisms at two-week intervals, starting May 24 and ending August 2. Dr. Charles W. Miller, project leader, reported that populations of both organisms increased during the test period and concluded that this larvicide does not constitute a hazard to either species.

In recent times, there has been a revival of interest in petroleum oils as mosquito larvicides. Personnel of this laboratory initiated studies of these products at Vero Beach during 1963. These studies were temporarily discontinued when the laboratory was moved to Panama City but were resumed on a limited scale during 1968. The objective of this project is to reduce the volume of oil required for good kill of mosquito larvae by the addition of spreading agents. Results of laboratory work during 1968 were encouraging and it is expected that several products of this type will be tested in the field during 1969.

BITING FLIES SECTION

Dog Fly Studies

Except for some rather high counts of adult dog flies on bay shores during January, 1968 was an average dog fly year, commencing just before Labor Day and ending about November 1. Personnel of this laboratory observed up to 30 adult flies landing on a man on the shore of St. Andrews Bay near Lynn Haven, Florida, January 9, 1968. However, flies were generally scarce between January and August.

The earliest report received of flies appearing on bays in significant numbers after January was at Choctawatchee Bay in South Walton County. Flies were reported to be numerous enough to bother dogs on August 4, but these flies disappeared next day and apparently did not reach the Gulf beaches. The earliest report of flies at a Gulf beach also was in Walton County near Inlet Beach on August 17, but flies were not numerous at that time. A major

outbreak occurred in this same area August 27, which is one of the earliest dates that flies have been found in large numbers on Gulf beaches by personnel of this laboratory. Flies were intermittently plentiful in this area of southeastern Walton County from August 27 through October.

The Gulf Mosquito Control District at Panama City Beaches greatly increased its fogging program at the Panama City beaches this year and appeared to do a good job of killing adult flies on the beaches. However, it also appeared that adult flies never invaded these beaches during 1968 in as large numbers as those observed at Inlet Beach only a few miles to the west. No sound evidence to explain this observation is available at this time.

A highlight of 1968 was the discovery by personnel of this laboratory on September 6 of a large number of dog fly larvae in eel grass, *Vallisneria americana*, at Deer Point Lake, Bay County. While this is not the first report of this fly breeding in eel grass, it is the first time that large numbers have been found in deposits of this grass on the shores of freshwater lakes. Three square feet of the infested grass, transported to the laboratory as a sample, yielded 1008 adult dog flies over a period of about three weeks. Following this discovery, a similar condition was found at Lake Wimico in Gulf County on September 12. It was estimated that flies were breeding heavily in eel grass along approximately seven miles of shore at Deer Point Lake and 14 miles at Lake Wimico.

Surveys of other counties are being made to determine the extent of this previously unknown source of dog flies in West Florida. Eel grass is especially well adapted to conditions in slightly brackish water areas such as tidal streams and nearby estuaries and other waters of high mineral content.

An interesting observation during 1968 was the apparent feeding of adult dog flies on the nectar of a dune plant, *Solidago pauciflosculosa Michx.* This plant and sea oats dominate the vegetation of the beach dunes of West Florida. Hundreds of adult dog flies were observed resting on the Solidago and probing the flowers with their proboscis, presumably sucking nectar.

Tests of Residual Sprays on Marine Grass Deposits

Residual sprays on marine grass deposits were tested using methods similar to those described in previous reports. The principal objective of the tests during 1968 was to develop a marker for these sprays which will permit identification of treated grass for several months after the initial spraying. It is known that bay grass deposits will not attract dog flies after they have aged for 30 days during summer; therefore, if treated grass can be identified it need not be resprayed, because present insecticidal treatments are effective for at least 30 days.

The marker tested was DuPont Oil Red Dye. A sticker furnished by Chevron Chemical Company also was tested to see if this product would prolong the life of the dye marker on the grass.

DDT, methoxychlor, and Baygon were applied as emulsion sprays at dosage rates of 387, 387, and 100 milligrams, respectively. One treatment of DDT and one of methoxychlor in each block contained dye and sticker and the other one contained dye without a sticker. The Baygon treatment was included only to repeat the previous tests of this chemical against the dog fly; therefore, neither dye nor sticker was added to this treatment.

Dye was dissolved in the insecticide concentrates at rates that would result in one-half or one gram of dye per gallon of diluted spray. Sticker was added to dilute spray just prior to application at a rate of 300 milliliters per 100 gallons.

Bioassay of tests established in July was not possible because imported fire ants destroyed the fly pupae that were added to each plot. The entire 10 acre property of the laboratory was treated with granular Mirex but it was October before the ants were controlled to a point where bioassay of these tests was possible. This, of course, did not affect longevity evaluation of the dye marker.

Both DDT and methoxychlor were 95 per cent effective against dog flies for at least 60 days in all plots; therefore, the dye had no effect on the toxicity of these materials to the dog fly. Baygon was 95 per cent effective only for 18 days; these results confirm previous tests.

Longevity of the dye marker was evaluated at biweekly intervals by placing a handful of treated grass on a white paper towel, then wetting the grass with acetone from a plastic squeeze bottle. When dye was present it was dissolved by the acetone and a red stain was left on the towel. This is a simple test that can be done by a field inspector any place on the bay shore.

As of December 31, dye was still detectable in plots treated in July at the one-half and one gram per gallon rates, and the treatments containing the sticker were not better than the others. During this five-month period, the dye treatments withstood rainfall of 22.7 inches. Tests of tidal washing of the dye treatments are planned for 1969; however, it appears that the oil red dye will be a successful marker for these grass sprays.

Late in the year, tests of DDT and methoxychlor residual sprays on grass were initiated in a large walk-in cage measuring eight feet by eight feet by six feet high. The object of this test was to give emerging dog flies more opportunity to escape exposure to treated grass after they emerge. It was reasoned that the smaller cages normally used in these tests might force the flies to stay in contact with treated grass for a longer period than they would under natural conditions, thus reflecting more mortality than the treatment might actually produce under field conditions. These tests will be continued during 1969.

Tests of Aerial Sprays Against Caged Adult Dog Flies

Ultra low volume (ULV) aerial spraying would appear to be an ideal method of controlling adult dog flies on the Gulf beaches of West Florida. However, the problem is to successfully adapt this method to the conditions of high winds and temperatures that usually prevail on the beaches when flies are present there.

Preliminary tests of ULV aerial sprays of naled against caged flies were initiated at inland test plots during the spring and early summer. Owing to the small average size of droplets of ULV sprays, these tests were designed to evaluate the drift characteristics of the spray. An inland site was used because wind direction at the beaches is not favorable for these tests in late spring and early summer.

Stakes 15 feet in height were placed in a line down a dirt road in an open area. They were spaced at various intervals from 0-feet to 2300-feet downwind of the nearest flight center. Cages of flies were placed on the stakes at one foot, six feet, and 15 feet above ground level. The aim of these tests was to find an operation that would give at least a 90 per cent kill for a given distance downwind of the flight center, as in thermal aerosol tests.

When winds were less than six miles per hour and temperatures 80 degrees F. or less, 90 per cent or better kill was recorded at stations 700 feet to 2000 feet downwind of the last swath. These conditions usually prevail only at dawn and late afternoon during summer. It is believed that this is the first time aerial sprays have been tested in this way.

Tests of ULV Aerial Sprays Against Natural Populations of Dog Flies

Similar problems were encountered this year, as in previous years, in trying to obtain valid tests of aerial sprays against natural populations of flies at the Gulf Beaches. These problems were described in the 1967 annual report. However, as in previous years, there were occasional periods when northerly winds prevailed for several days, keeping flies in proximity of the beach and permitting evaluation of test results.

ULV aerial sprays of naled applied at various dosages and volumes were tested on the Gulf beaches. In each of these tests, whether against natural populations or not, caged flies from the laboratory colony were included. The caged flies were placed at various heights on stakes that were strategically located downwind of the flight centers as in the preliminary tests described above. Dye cards were placed on stakes three feet high and at ground level to evaluate the drift pattern of the spray droplets. In tests that included natural populations of flies, traps and/or landing rate counts were used for sampling fly populations just prior to and one-half hour after treatment at five locations on the beach in the treated area and at a similar untreated area several miles away.

It was demonstrated that a delay of only two hours in applying the spray during the morning hours could reduce the fly kill by as much as 55 per cent. This presumably was due to increased wind velocity and/or temperature as the day advanced. In some areas there is a sheer embankment as high as 30 feet at the landward edge of the beach. Flies concentrate at the bottom of this embankment where they rest on vegetation that is protected from the wind. Unfortunately, the embankment also offers protection from sprays.

Several tests were conducted using three swaths at an altitude of 75 feet on flight centers of 200 feet or 300 feet upwind of the beach with the last swath 400 feet from the beach. A fourth swath was placed at the edge of the embankment at an altitude of 20 to 30 feet. In congested areas of the beach this swath cannot be made safely but there are many miles of isolated and uninhabited

beaches where such low flying is not a public hazard. These tests were conducted in such an area of the beach.

Results showed that 90 to 100 per cent of the caged flies were killed at the bottom of the embankment as well as at other stations in the test area. However, trap and landing rate counts indicated that these sprays were slightly less effective in reducing the natural populations of flies. In two tests the trap counts showed an 82 and 86 per cent reduction, while landing rates showed a reduction of 71 and 81 per cent, respectively. In four other similar tests only landing rate counts were taken, with three showing a reduction of 24 to 80 per cent, and the fourth showing an increase in the natural population. In some instances, fly counts increased in the untreated area during the test period. This would account for less control of the natural population than the caged flies and raises the question as to proper timing of sprays. Under certain conditions it appears that flies continue to build up on the beaches throughout the day. This project, which is supported by a grant from the U.S. Department of Agriculture, will be continued during 1969.

Insecticide Resistance Studies

Dog flies have been exposed to DDT applied to the surface of marine grass deposits for about 23 years in West Florida. Laboratory tests comparing unselected laboratory colony flies with natural flies have shown that dog flies in the Panama City area are still highly susceptible to DDT.

Laboratory studies were initiated during 1968 to determine if resistant strains could be selected by repeated exposure to dosages of DDT and methoxychlor that kill 80 to 90 per cent of the flies. It is hoped that methoxychlor can be recommended as a grass spray, but it would be unwise to make a switch to an insecticide whose use would result in resistant populations of flies.

The methoxychlor selection studies were initiated in March, using unsexed flies from the 45th generation of the fly colony maintained at this laboratory. Several thousand parent flies were collected and placed 25 to a cage. Each cage was exposed in a wind tunnel to an LC_{80} dosage level of a methoxychlor-acetone spray solution. The treated flies were immediately knocked down with carbon dioxide and transferred to clean holding cages. After 24 hours, mortality counts were recorded and the survivors were the parents of the next generation. This procedure was repeated for each new generation. DDT selection studies using the same procedure were initiated in July with flies from the 50th generation of the laboratory colony.

As of December 31, eleven generations of flies had been treated with methoxychlor and seven with DDT. Dosage mortality curves were plotted for each generation and compared with the dosage curve of their unselected parents. The results thus far have shown no significant resistance to either insecticide. These studies will be continued for several more generations. Similar studies using Baygon will be initiated after terminating methoxychlor, and DDT projects.

Preliminary selection studies using fly larvae were initiated in December by exposing the larvae to media treated with methoxychlor, DDT, and Baygon. Selection studies will begin when dosage-mortality curves have been established.

Sand Fly Studies

The large-scale tests of Panasol and creosote oil emulsions for the control of salt marsh sand larvae*(Culicoides)* that were planned for the east coast of Florida were not accomplished this year. The selection of a suitable area, difficulty in coordinating tests to work loads in the districts, and personnel shortage were some of the factors contributing to the delay. These tests will remain as a major object of this project.

A one-year study was made, beginning in June, 1967, and ending in June, 1968, to determine if increases in larval numbers compared with the increase in adult activity of sand flies during the year in the Panama City area.

Sampling sites were established at Pretty Bayou where a light trap was operated for a 24-hour period three times a week. From each of two sites four soil samples were collected at weekly intervals to determine larval counts.

The results of this one-year study showed that numbers of larvae began a gradual increase in September, 1967, followed by a sharp rise in January, 1968, and peaked in May with an average of 700 larvae per sample. The trap records showed that adults were present all year, but began increasing in February, peaked in April, and sharply decreased in June. A similar pattern of adult activity was recorded from light traps operated in three areas of Panama City during two previous years.

WINTER HAVEN MIDGE RESEARCH LABORATORY

All areas of the state requested information and assistance on the nuisance of overabundance of chironomid and chaoborid midges. New water-front developments introduced the human newcomers to midges. Man-made and fertilized, bodies of water increased the nuisance reports.

Biological Studies

Surveillance continued on seasonal and annual emergences in two Winter Haven area lakes and larval numbers in four lakes. Selected physical and chemical determinations continued in the above lakes. Emphasis has remained on *Gyptotendipes paripes,* however, data is collected on other species, including those reported in nuisance numbers. Again one summer trainee and four high school students from the Polk County Science Research Program participated in the activities of this facility.

Control Studies

Eight drum tests were conducted to screen materials for insecticidal activity against *Glyptotendipes paripes.* Three of the tests were terminated before completion due to adverse wave action in the lakes. In the remaining five, 15 materials were tested, using 84 treatments for formulation and rate. The results indicated three materials, not presently recommended for control of midges, had very good insecticidal activity while an additional three had promise.

Two methods of testing pesticide against midge larvae in the laboratory which eliminates the direct handling of the larvae were developed. One method was designed to test larvae collected in the wild, while the other was designed to test laboratory reared larvae.

The techniques for colonization of *Chironomus crassicaudatus* were worked out thus making a uniform supply of this species available for testing.

Preliminary work was initiated using sticky panels to study the flight activity of midges with regard to control measures. Preliminary work was also initiated on a system using a sugar solution and air agitation to speed up the picking of larvae from dredge samples. Both of these projects will require refinement of the equipment and methods.

BUREAU OF FINANCE AND ACCOUNTS

FRED B. RAGLAND, B.S.
Director

PAUL R. TIDWELL, B.B.A.
Assistant Director

The business and financial management of the agency is the responsibility of this bureau. Every effort was made to be of assistance to the State Health Officer and the directors of the various public health programs and activities in planning and executing the overall financial program. The bureau had the responsibility of keeping the State Health Officer and members of the Board advised as to program expenditures in relation to budgeted funds.

The major functions carried out by the bureau include: accounting, budgeting, purchasing, property control, duplicating services, mail, shipping, receiving, automobile control and assignment, and buildings and grounds maintenance. The bureau worked with the State Board of Health (SBH) program directors to plan maximum utilization of funds. This required sound budget preparation for future needs of the various health programs. Once the funds were provided and properly budgeted, a logical system of accounting for these funds and issuing of reports concerning their expenditure was necessary. This, together with the issuing of proper budget control information, was accomplished by the bureau. This sometimes became quite involved due to the complexity of the various sources of funds: federal, state, county, private, etc. Each of these sources carried its own set of rules, laws and regulations as to the administration and expenditure of the funds.

The fiscal year ended June 30, 1968, was the first year of the 1967-69 biennium for which the 1967 Legislature made state funds available to the agency through the General Appropriations Act. Generally, funds were appropriated for the continuation of current programs and activities authorized by existing statutes with allowances for increases required to maintain the current level of services. Also included in the General Appropriations Act was an additional amount of $500,000 (lump sum) for air and water pollution control measures to be based upon a special program developed by the agency utilizing all available resources, i.e., federal, state and local, to combat pollution problems. The Appropriations Act provided for continuation of all current positions and the amount required for modified implementation of the pay plan. Thirty-seven new positions were authorized in Administration, Buildings and Facilities Section of the Bureau of Finance and Accounts, Bureau of Vital Statistics, Bureau of Laboratories, Research Center in Vero Beach and Arthropod Laboratory in West Florida.

Program expenditures for the fiscal year ended June 30, 1968, amounted to $39,000,000, an increase of approximately $3,500,000 over the previous fiscal year; $2,000,000 of this increase being within county health departments (CHD's) and $1,500,000 in Grants and Donations Trust Fund. Expenditures in federally financed special and research projects reached an all time high with a full year experience for some of the major programs, such as Maternity and Infant Care and Children and Youth projects. One major program change taking place after the close of fiscal year 1968 was the termination of the *Aedes aegypti* contract. This fully federal financed program included over 800 budgeted positions with total annual expenditure of $3,500,000, and was terminated on September 30, 1968.

The most significant capital improvement in 1968 was the completion of the $1,000,000 office addition in Jacksonville. During the summer, the four storied building was occupied and enabled the agency to bring together in one location, activities that had been occupying leased space in another section of the city. Detailed comments on the year's activities by the bureau's sections follow:

PURCHASING AND PROPERTY SECTION

The Purchasing Section issued a total of 4120 separate purchase orders during 1968 to obtain the supplies, equipment and services needed by the various programs and activities of the SBH. The total dollar value of orders issued exceeded $1,415,000 with purchases being made in accordance with rules and regulations of the State Purchasing Commission.

In addition to purchasing the normal operating needs of the agency, the Purchasing Section worked closely with the interior designer in the solicitation of bids for various items of interior furnishings for the new SBH building addition, including such items as conference room furniture, carpeting and vertical blinds.

The end of the *Aedes aegypti* Eradication Project in September, 1968, necessitated the cancellation of insurance coverage on approximately 400 vehicles being used in this program as well as cancellation of the employees' uniform rental contract and employee blanket position bond.

CHD's normally handle purchases locally within the organizational frame-work of the CHD, however, their procedures must also conform to the Florida Statutes governing purchase, such as obtaining bids and advertising for bids where required.

Insurance

Fire insurance on buildings and contents is carried in the State Fire Insurance Fund under the supervision of the State Fire Insurance Commission. Coverage on boilers and heating equipment is carried in a master policy supervised in the office of the State Fire Insurance Commissioner. Scientific, dental and X-ray equipment in various mobile trailer units is insured under a "Floater" or "Scheduled Property Policy." Automobiles, trucks and other special purpose vehicles owned by the agency are covered by a fleet policy to include public liability, property damage, fire, theft and comprehensive. Boats and outboard motors owned by the agency are insured under marine policies to include public liability and property damage as well as protection against damage or loss of the boats and motors. Other major insurance coverages include: money and securities, broad form, loss inside and outside of premises; public employees' honesty blanket position bond; and workmen's compensation.

During 1968 the insurance company handling the agency's fleet automobile liability policies settled claims in the amount of $2087. This total includes claims resulting from accidents in prior years which were settled during 1968, as well as accidents which occurred and were settled during 1968, and accidents involving SBH owned vehicles and vehicles on loan from the Federal Government for use in the *Aedes aegypti* Eradication Program. A total of $886.23 was received by the SBH in settlement of damages to agency vehicles caused by others. The agency as self-insuror for damages caused by collision paid $998.56 for repairs. Settlement in the amount of $552.38 was received under the comprehensive coverage of our policy for losses due to glass breakage, vandalism and theft.

Property Control

The responsibility of this section is to see that capital outlay items are assigned property numbers, maintain records, process annual inventories on approximately 213 locations and handle fire insurance on buildings and contents. During the year, 818 pieces of equipment valued at $172,113.61 were added to the inventory. A total of 303 items of equipment valued at $39,441.65 were deleted from the records. One new laboratory building in Tampa was completed and one stream sampling station, Attapulgus Creek in Gadsden County, for a total value of $715,696.50.

Property values reflected by the SBH Plant Ledger as of June 30, 1968 were as follows:

Real Property	$3,932,100
Land	144,000
Furniture & Equipment	1,900,370
Automotive Equipment & Trailers	316,927
Aircraft	3,000
Books & Film	520,222
Total	$6,816,619

Control of property and maintenance of records as required by Florida Statutes continues to be a job of considerable magnitude, not only because of the dollar increase, but because as the SBH continues to grow and departments acquire new quarters, property cards have to be changed or corrected for insurance purposes on any change of location.

The importance of correct maintenance and control of property is continually stressed within the agency to insure that the records reflect the current status of all property owned by this agency.

BUILDINGS AND FACILITIES SECTION

This section has the overall responsibility for the general and technical maintenance and upkeep of the buildings and grounds of the SBH central office complex in Jacksonville. The complex consists of eight buildings varying in age from 55 years to new, situated on the equivalent of three city blocks. There is every imaginable problem associated with this type of complex and the section has been staffed with 54 positions to handle the duties from maid and custodial service to the technical operation of sophisticated equipment systems, including the public health laboratory equipment.

Also, important service facilities are a part of the overall responsibility. These serve all of the bureaus, divisions and programs on a centralized basis. The duplicating and addressograph sections have kept up with the rapidly growing demands of all programs. The shipping, receiving and storage section has fairly recently occupied a separate large warehouse facility at 1214 Pearl Street in the complex and has centralized all these facilities. The mail room and distribution section is actually like a branch post office which handles all agency mail and interoffice communications, incoming and outgoing.

During this 1967-69 biennium, 20 of the new positions provided the agency in the Appropriations Act have been allocated to the Buildings and Facilities Section. This has been due primarily to the new office addition previously mentioned. With these added positions, as well as new duties and responsibilities resulting from the enlarged building facilities, there was an urgent need to restructure and organize this section properly. This has now been accomplished.

FISCAL SECTION

The essential function of this section is the determination of the legality and propriety of payments under the various programs of the agency, processing all bills and vouchers for payment, the financial record keeping and preparation of required financial reports.

The financial transactions of the SBH for the fiscal year ended June 30, 1968, as reflected by the records of the bureau, are presented in a condensed form at the end of this section. A detailed financial report for the fiscal year ended June 30, 1968, has been prepared and distributed to the Governor, members of the Board of Health and all bureaus, divisions and CHDs. The funds received (or appropriated) for the fiscal year ended June 30, 1968, were from the following sources:

State appropriations	$11,389,028.00	27.3%
From local agencies for county health units	12,819,601.81	30.7%

From Federal Grants-in-Aid	4,551,325.00	10.9%
From Grants and Donations (mostly federal)	10,211,038.33	24.5%
From local and state agencies-Hospital Services for the Indigent	2,780,142.91	6.6%
Total	$41,751,136.05	100.0%

The expenditures by the SBH in summary, were for:

Personal Services (salaries and other personal services)	$21,989,287.91	56.3%
Contractual services (repairs, utilities,travel expense, hospitalization)	9,934,562.75	25.4%
Commodities (office, medical, laboratory, and mosquito control supplies)	1,772,421.93	4.5%
Current Charges (rent, insurance, registrar fees)	2,611,905.43	6.7%
Capital Outlay (equipment & fixed assets)	1,240,054.52	3.2%
Grants to Counties and Mosquito Districts	1,530,666.23	3.9%
Total	$39,078,898.77	100.0%

In addition to funds reported in the annual financial report and summarized above, certain other funds and services were made available by the U.S. Public Health Service (USPHS) to the activities but were not paid directly to the SBH. They include USPHS personnel on loan to the Board in the Bureaus of Preventable Diseases, and Adult Health and Chronic Diseases. Fiscal operation followed a budget plan of 192 departmental budgets. These budgets were periodically revised as required.

SUMMARY OF RECEIPTS AND DISBURSEMENTS AND BALANCES FOR THE FISCAL YEAR ENDED JUNE 30, 1968

RECEIPTS

FROM STATE APPROPRIATIONS	
General Public Health:	
Salaries	$ 3,488,083.00
Other personal services	17,138.00
Expenses	1,388,237.00
Air and water pollution control	200,000.00
Grants to localities	1,650,000.00
Purchase of polio and other vaccines	125,000.00
Dental scholarships	40,000.00
Medical scholarships	21,000.00
Retirement and social security matching	250,084.00
Hospital Services for the Indigent	975,000.00
County Health Units	3,050,000.00
Total State Appropriations	$11,204,542.00
FROM OTHER STATE SOURCES	$ 21,486.00
FROM FEDERAL GRANTS-IN-AID	
Public Health Service:	
Comprehensive health services	$ 1,320,270.00
Cuban health services	1,363,581.50
Children's Bureau:	
Maternal and child health	1,867,473.50
Total Federal Grants-In-Aid	$ 4,551,325.00
FROM GRANTS AND DONATIONS	$10,211,038.33
FROM LOCAL AGENCIES FOR COUNTY HEALTH UNITS	$12,819,601.81
FROM HOSPITAL SERVICES FOR THE INDIGENT	
Local sources	$ 415,446.92
State welfare board	2,364,695.99
Total Hospital Services for the Indigent	$ 2,780,142.91
FROM STATE PURCHASES OF LAND	$ 163,000.00
TOTAL RECEIPTS	$41,751,136.05
TRANSFERS	
From general public health to Division of Law Enforcement	$ 114,800.00
NET RECEIPTS	$41,636,336.05
BALANCE July 1, 1967, $5,331,923.42 (Less expired appropriations of $439,952.14)	4,891,971.28
TOTAL RECEIPTS AND BALANCES	$46,528,307.33

OPERATING EXPENSES

Personal Services:	
Salaries	$21,357,754.26
Other personal services-individual	420,981.51
Other personal services-other	210,552.14
Contractual Services:	
Travel expenses, including subsistence and lodging	1,634,918.15
Communication and transportation of things	581,913.42
Utilities	246,748.42
Repairs and maintenance	163,150.53
General printing and reproduction service	99,593.12
Subsistence and support of persons	6,673,603.62
Other contractual services	534,635.49
Commodities:	
Bedding, clothing and other textile products	2,899.64
Building and construction materials and supplies	3,435.47
Educational, medical, scientific and mosquito control materials and supplies	1,342,386.78
Maintenance materials and supplies	122,488.59
Motor fuel and lubricants	62,986.61
Office materials and supplies	226,811.19
Other materials and supplies	11,413.65
Current Charges:	
Insurance and surety bonds	185,984.95
Rental of building	352,218.07
Rental of equipment	180,338.38
Other current charges and obligations	149,876.78
Merit System	80,703.78
Social Security and retirement matching	1,662,783.47
Total Operating Expenses	$36,308,178.02

CAPITAL EXPENSES

Books	$ 14,045.80
Buildings and fixed equipment	805,700.29
Educational, medical, scientific and mosquito control equipment	206,259.79
Motor vehicles — passenger	30,589.16
Motor vehicles — other	60.45
Office furniture and equipment	175,709.40
Other structures and improvements	1,998.43
Other capital outlay	5,691.20
TOTAL CAPITAL EXPENSES	$ 1,240,054.52

GRANTS, SUBSIDIES AND CONTRIBUTIONS

Grants to counties and mosquito control districts	$ 1,530,666.23
TOTAL PROGRAM EXPENSES	$39,078,898.77

NON-OPERATING DISBURSEMENTS

Transfers	$ 1,264,932.00
Refunds	10,210.23
TOTAL NON-OPERATING DISBURSEMENTS	$ 1,275,142.23
TOTAL DISBURSEMENTS	$ 40,354,041.00
BALANCE June 30, 1968	$ 6,174,266.33
TOTAL DISBURSEMENTS AND BALANCES	$46,528,307.33

TABLE 15

FUNDS RECEIVED BY COUNTY HEALTH UNITS FROM STATE BOARD OF HEALTH AND LOCAL SOURCES FOR THE FISCAL YEAR ENDED JUNE 30, 1968

COUNTY	TOTAL FUNDS	STATE BOARD OF HEALTH	LOCAL FUNDS					
			Total	Board of County Commissioners	Board of Public Instruction	Cities	Fees Collected	Other Receipts
Alachua	$ 320,663	$ 86,840	$ 233,823	$ 187,095	$ 6,394	$ 8,245	$ 943	$ 31,146
Baker	35,987	18,060	17,927	17,863	....	....	64	....
Bay	122,794	54,580	68,314	56,733	....	....	4,360	7,221
Bradford	52,148	27,259	24,889	20,892	....	2,400	97	1,500
Brevard	524,265	111,493	412,772	342,364	....	....	1,335	69,073
Broward	766,158	189,385	576,773	551,058	1,300	5,775	3,050	15,590
Calhoun	33,495	18,584	14,911	13,000	600	....	61	1,250
Charlotte	140,989	35,743	105,246	68,546	4,920	....	9,293	22,487
Citrus	43,467	21,434	22,033	17,754	4,200	....	79	....
Clay	91,437	41,614	49,823	41,171	....	2,400	132	6,120
Collier	113,571	39,330	74,241	72,149	....	....	214	1,878
Columbia	93,381	37,733	55,648	43,873	....	....	2,397	9,378
Dade	2,349,053	480,842	1,868,211	1,677,886	....	....	185,384	4,941
DeSoto	46,182	24,091	22,091	19,006	....	....	2,722	363
Dixie	27,142	14,815	12,327	9,710	2,600	....	8	9
Duval	395,826	144,208	251,618	202,994	....	3,960	43,409	1,255
Escambia	539,683	127,222	412,461	238,810	58,746	35,000	34,348	45,557
Flagler	25,226	14,321	10,905	10,877	....	....	28	....
Franklin	30,200	14,518	15,682	15,635	....	....	47	....
Gadsden	103,500	52,770	50,730	45,143	4,200	1,000	387	....
Gilchrist	26,146	14,062	12,084	12,078	....	....	6	....
Glades	22,845	7,137	15,708	15,391	....	....	3	314
Gulf	43,028	17,005	26,023	22,957	3,000	....	66	....
Hamilton	33,352	17,530	15,822	15,622	....	105	36	59
Hardee	65,486	23,637	41,849	39,162	500	....	2,138	49
Hendry	73,548	22,535	51,013	25,209	....	....	2,827	22,977
Hernando	40,801	25,525	15,276	8,169	7,000	....	107	....
Highlands	72,645	38,892	33,753	33,431	....	....	208	114
Hillsborough	1,399,229	251,684	1,147,545	799,091	....	3,169	227,965	117,320
Holmes	44,643	20,933	23,710	10,833	8,500	....	50	4,327
Indian River	115,924	44,858	71,066	42,004	3,000	4,500	5,006	16,556
Jackson	94,284	49,198	45,086	36,673	3,600	200	900	3,713

TABLE 15 (Continued)

FUNDS RECEIVED BY COUNTY HEALTH UNITS FROM STATE BOARD OF HEALTH AND LOCAL SOURCES FOR THE FISCAL YEAR ENDED JUNE 30, 1968

COUNTY	TOTAL FUNDS	STATE BOARD OF HEALTH	LOCAL FUNDS					
			Total	Board of County Commissioners	Board of Public Instruction	Cities	Fees Collected	Other Receipts
Jefferson	$ 35,440	$ 20,046	$ 15,394	$ 8,000	$ 6,000	$ 1,000	$ 94	$ 300
Lafayette	20,319	9,008	11,311	10,500	....	....	805	6
Lake	151,210	58,663	92,547	87,667	....	1,500	3,380	....
Lee	223,459	66,797	156,662	145,165	....	....	556	10,941
Leon	271,840	79,934	191,906	125,493	11,250	10,440	26,604	18,119
Levy	49,719	24,203	25,516	18,268	7,200	....	48	....
Liberty	24,939	8,930	16,009	16,005	....	....	4	....
Madison	45,886	28,119	17,767	17,692	....	....	75	....
Manatee	344,132	75,324	268,808	202,219	6,450	....	22,647	37,492
Marion	192,520	63,240	129,280	76,698	11,780	5,600	10,294	24,908
Martin	56,912	33,504	23,408	19,946	750	....	2,658	54
Monroe	132,560	53,621	78,939	55,849	8,000	2,800	10,331	1,959
Nassau	94,289	34,211	60,078	52,898	....	....	86	7,094
Okaloosa	176,773	68,282	108,491	76,441	10,000	....	11,218	10,832
Okeechobee	32,194	15,797	16,397	15,857	....	....	470	70
Orange	784,324	160,905	623,419	500,056	11,000	9,833	93,564	8,966
Osceola	52,688	31,085	21,603	21,500	....	....	103	....
Palm Beach	1,082,200	199,034	883,166	707,467	36,000	....	80,575	59,124
Pasco	81,440	42,637	38,803	31,200	....	....	5,621	1,982
Pinellas	1,431,797	236,766	1,195,031	830,404	....	....	208,716	155,911
Polk	719,732	135,926	583,806	456,081	53,845	1,500	52,673	19,707
Putnam	103,911	47,666	56,245	53,925	....	....	1,352	968
Santa Rosa	107,942	46,437	61,505	31,696	....	....	3,092	26,717
Sarasota	454,372	86,855	367,517	263,647	4,950	....	48,578	50,342
Seminole	127,614	57,201	70,413	52,914	14,000	....	3,118	381
St. Johns	83,171	45,010	38,161	29,482	3,340	....	182	5,157
St. Lucie	171,524	56,297	115,227	47,171	11,790	10,000	4,546	41,720
Sumter	37,568	22,491	15,077	14,342	....	....	730	5
Suwannee	54,300	33,082	21,218	21,111	....	....	107	....
Taylor	36,373	23,029	13,344	12,750	500	....	94	....
Union	26,200	12,196	14,004	13,974	....	....	17	13
Volusia	454,525	109,845	344,680	239,346	15,000	....	26,614	63,720
Wakulla	37,654	18,647	19,007	18,000	1,000	....	7	....
Walton	70,409	27,905	42,504	27,171	7,000	3,400	63	4,870
Washington	43,280	20,955	22,325	20,331	210	....	51	1,733
CHU's At Large	77,794	77,794						
	$15,778,108	$4,219,180	$11,558,928	$9,034,445	$328,625	$112,827	$1,146,743	$936,288

BUREAU OF HEALTH FACILITIES AND SERVICES

WALTER E. DEACON, M.D., M.P.H.
Director

WARREN M. KIRK, M.D.
Assistant Director

This bureau is charged with the implementation and administration of statutes for the licensure of hospitals, nursing homes, homes for the aged, and special service homes (Chapters 395 and 400 FS), and for hospitalization of the indigent (Chapter 401 FS). Under an arrangement with the Division of Indian Health, U.S. Public Health Service, (USPHS), hospitalization, dental, outpatient and prescription services are provided for the Seminole and Miccosukee Indians of Florida. The Federal Bureau of Health Insurance is aided in Medicare certifications and recertification of providers included in the program. Constant endeavors are devoted to upgrading health care and related facilities and services through staff consultation and educational offerings. The bureau programs are designed to promote the delivery of quality patient care in all institutions of the state and to meet the demands for services in assigned areas of responsibility resulting from a steadily increasing population.

A significant task undertaken was the development of a fiscal year plan for each program with the participation by the respective staff. The principles and concepts of the "Planning-Programming-Budgeting System", introduced into government a few years ago, and those of comprehensive health planning were applied in the preparation of these plans. Health problems and objectives as related to each program are now well defined and methods for the attainment of goals have been established. They will be evaluated at least twice a year to determine progress. To conduct these evaluations in a meaningful way, a more productive system of gathering data is proposed.

SPECIAL SERVICES SECTION:

This section developed and presented educational and training programs to meet needs in areas of the bureau's assigned responsibilities; organized and coordinated specialized consultation services; provided assistance to other programs in the preparation of recommended regulations and standards; conducted studies and investigations in specific problem situations; and maintained cooperative relationships with official, voluntary, and professional organizations identified with the health care field. A principal function has been concern with program planning, implementation and evaluation of activities for each section of the bureau.

Educational services assumed new dimensions during the year due to increased recognition of the opportunities they provide for alleviation of public health problems. As a consequence, the first state-wide seminar on the administrative aspects of infections control in hospitals and institutions was conducted at the State Board of Health (SBH), Jacksonville, March 26-28. It was designed for hospital administrators, institutional advisors and superintendents, physicians, nurses, laboratory staff and other ancillary personnel. The presentation was made possible by the assistance of the U.S. Public Health Service (USPHS), National Communicable Disease Center (NCDC) and Division of Hospital and Medical Facilities, Bureau of Health Services. Co-sponsors included Bureaus of Health Facilities and Services, Preventable Diseases, and Laboratories; the Florida Division of Community Hospitals and Medical Facilities; Florida Medical Association (FMA); Florida Hospital Association (FHA); and Florida Nurses Association (FNA). The program was approved by the Florida Academy of General Practice for 16 hours credit. Attendance was 150, including staff participants.

"Getting the Answers" was the theme of the Tenth Annual Short Course held in Jacksonville April 30-May 3 by the Florida Nursing Home Association (FNHA) with the cooperation and assistance of the SBH. The keynote address on "Expanding Responsibilities of Health Care Services" was presented by the State Health Officer. The program provided a forum for the improvement of administrative skills through a problem solving process consistent with statutory, regulatory, managerial, and professional services standards. Nursing home personnel and bureau representation accounted for an attendance of 192. The objective of these courses through the years has been the cooperative elevation of competencies to assure the delivery of quality patient care.

A series of meetings were held in 1968 with representatives of the FNHA and community colleges on the implementation of a continuing education program in health care management for nursing home administrators and personnel. Course offerings cover two sessions of 16 weeks each for a total of 96 hours. The first program was introduced at St. Petersburg Junior College, January 16, with 33 persons enrolled. This institution also undertook a two-year program leading to an associates of arts degree. Similar short term courses began at Florida Junior College at Jacksonville, August 28, with an initial enrollment of 35, and preparations were made for a course to be offered by Palm Beach Junior College. A bureau representative participated in the instruction provided by the established programs.

Regional nursing home seminars for CHD personnel were conducted at Winter Park, November 19-20; Jacksonville, November 26-27; Fort Lauderdale, December 3-4; and Panama City, December 10-11. Purposes were: (1) Further development of cooperative relationships between CHD's and the bureau in the nursing home licensure program through exchange of information, provision of assistance in the interpretation and application of laws and regulations, and correlation of responsibilities with established policies and procedures; (2) consideration of mutual problems and approaches for their solutions; (3) strengthening of the nursing home licensure program at county and state levels. Health officers, public health nurses, sanitarians, and other public health representatives with nursing home licensure responsibilities from 42 counties participated for an attendance of 143. CHD's recommended that these seminars be repeated annually in advance of new licensing periods.

Nurse consultation services resulted in 48 visits to nursing homes and 20 visits to hospitals in 28 counties for the purpose of conducting licensure and Medicare surveys and providing assistance in problem areas. In addition, special visits were made to four nursing homes in three counties to investigate complaint letters received.

The bureau's nurse consultant also visited 11 counties to assist public health nurses in the interpretation of nursing home rules and regulations and to demonstrate procedures for the accomplishment of nursing home surveys and consultation visits at the local level. Hillsborough County was aided in the presentation of a two-day public health nursing staff development program on the application of nursing home rules and regulations. A conference on geriatric nursing care was conducted October 2 for Lee County nursing home personnel. In all visits to counties there was increased emphasis on the need for institutions to develop and hold scheduled in-service educational programs as an essential nursing component in delivery of quality care to patients.

In furtherance of the philosophy and practice of quality nursing care in health care institutions, the bureau's nurse consultant participated in a USPHS Region IV meeting in Atlanta, Georgia, May 1-2. Leadership was provided in the Third Annual Clinical Session on Gerontology and Geriatric Nursing presented by the College of Nursing, University of Florida, Gainesville, May 21. A discourse on the "Role of the Public Health Nurse" was presented to members of District II and III, FNHA, Orlando, July 2. Cooperative relationships and arrangements between nursing home nursing departments and dietary departments were discussed in a workshop for consultant dietitians in Sarasota, September 6. An in-service program on "Bowel and Bladder Control" was offered Osceola County nursing home personnel at Kissimmee, September 24. In addition, nursing support and participation was given each of the mentioned regional nursing home seminars for CHD personnel. Assistance also was furnished the nursing home and hospital programs in their plans review processes.

In order to correlate institutional nursing consultation services with the objectives of the SBH Division of Public Health Nursing, the assigned consultant participated routinely through the year in public health nurse supervisors' and consultants' conferences. Relationships, exchange of information, and bases for program development were maintained through attendance at the Florida Nurses Association (FNA) In-Service Programs, Orlando, February 16 and August 16; Communicable Disease Control Conference, Jacksonville, March 26-28; American Nurses Association Convention, Dallas, Texas, May 13-17; FNHA Convention, Clearwater, August 15; and the FNA Annual Meeting, Hollywood, October 22-25.

Institutional nutrition consultation services, coordinated with the Division of Nutrition, Bureau of Local Health Services, are provided by institutional nutrition consultants and by regional and county nutritionists. During 1968, staff consultants made 90 visits, and regional and county nutritionists made 149 visits to hospitals, nursing homes and homes for the aged relating to two hospital licensure surveys; 51 hospital consultations; six Medicare hospital surveys; 11 nursing home licensure surveys; 66 nursing home and home for the aged consultations; 21 extended care facility surveys; and 17 extended care facility consultations.

Continued consultation was furnished bureau staff, architects, builders and sponsors in the review of dietary department construction plans for 27 nursing homes, seven hospitals, and two related facilities. A space guide for nursing home food service facilities was developed as a graduate student project. The suggested criteria are now being used by bureau consultants and have been distributed to members of the designing professions and builders.

Educational activities and programs in institutional nutrition were expanded in 1968. The senior consultant served as a member of an advisory committee for completion of guidelines for a food service supervisors curriculum to be offered in junior colleges or vocational schools. Assistance was provided for nine training programs for food service supervisors; a correspondence course for 30 students sponsored by the American Dietetic Association (ADA); a two-year program and a 12-month program at St. Petersburg Junior College; a one-year program at Broward Junior College; a two-year program at Miami-Dade Junior College; a one-year program at Sarasota County Vocational School; an introductory program at Okaloosa-Walton Junior College; a two-year program at Florida Junior College at Jacksonville; and planning for similar educational offerings at Polk County and Sebring Junior Colleges.

A three-day workshop for consulting dietitians who serve nursing homes and hospitals was held in February under auspices of the Center for Continuing Education, University of South Florida, Bay Campus, St. Petersburg. It was presented under a USPHS Short Term Traineeship Grant and sponsored by the SBH, Florida Dietetic Association (FDA) and FHA. Fifty dietitians participated. Two one-day regional meetings for 150 consulting dietitians were conducted during the year with the cooperation of SBH regional nutritionists and district dietetic associations.

Participation of institutional nutritional services in Medicare surveys and consultations increased in 1968. A concentrated effort was made to recruit consulting dietitians, coordinate their efforts, and interpret to them the conditions of participation for providers of services. There are 100 persons approved currently for dietary consultation services - 86 members of the ADA and 14 non-members. Services are provided on a part-time or shared basis to 57 hospitals and 157 extended care facilities. This represents an increase of 60 per cent for hospitals and 40 per cent for extended care facilities over 1967.

During the year, the bureau's institutional nutrition consultant participated in meetings and workshops of the ADA; FDA; Jacksonville Dietetic Association (eight monthly meetings); Miami Dietetic Association; Catholic Hospital Workshop for Cook Managers; American Society of Hospital Food Service Administrators, Northeast Florida Chapter (eight meetings); FNHA; Florida Council on Aging (FCA); Southeastern Gerontological Conference, and Governor's Conference on Aging. The Division of Nutrition was assisted in the planning of a two-month institutional nutrition field experience for one and the orientation of four nutrition graduate students. A consulting dietitian's monthly report form also was prepared.

The section assisted the Hospital Licensure Program in further development of recommended revised regulations. Preliminary work also began in preparation of suggested modifications of nursing home regulations. Consultation was provided the FNHA in development of an instrument for the licensure of nursing home administrators as required by Title XIX of the 1967 Social Security Amendments.

Relationships continue to be maintained with the Florida Fire Service through participation in programs of the State Fire Marshal's 19th Annual Fire Prevention Conference, Florida State Firemen's Association, and Florida Fire Chiefs' Association. Bureau representation remains on the State Fire Marshal's advisory committee on fire prevention in hospitals, nursing homes and related facilities.

A staff member served as a consultant in a regional meeting of the Medical Services Administration, Social and Rehabilitation Service, U. S. Department of Health, Education and Welfare, in Atlanta, Georgia, March 20. It was called for the purpose of interpreting the provisions of Public Law 90-248, (Title XIX, Social Security Amendments, 1967) and obtaining suggestions relative to the preparation of guidelines and procedures for the application of the law. Three members also participated in a national conference of representatives of state nursing home licensing agencies conducted by the USPHS in Dallas, Texas, May 14-17. This conference was directed toward the implementation of comprehensive plans for a state-USPHS cooperative program for the improvement of patient care and nursing home physical facilities throughout the nation. The bureau continues to represent the SBH on the Long-Term Care and Extended Care Advisory Committee of the Health Planning Council of the Jacksonville area.

Assistance was given the development and presentation of a seminar on "Successful Retirement" co-sponsored by the Port Charlotte Cultural Center and the FCA September 18-19, in which approximately 400 retirees participated; a Governor's Conference on Aging, co-sponsored by the Florida Commission on Aging and the FCA in Jacksonville, September 25-26; and a year's educational activity for Districts II and III, FNHA. Papers prepared for presentation by senior representatives of the SBH include: "Health Services for the Later Years", "Latest Legislation and its Impact on Health Facilities", "Expanding Responsibilities of Health Care Services", and "Development of Hospital Regulations and Standards". Contributions also were made to the monthly newsletter of the FNHA, and quarterly articles in AGEWISE, the official publication of FCA.

HEALTH SERVICES FOR THE INDIGENT

Services under the state indigent hospitalization programs increased some 12.8 per cent during the year. Increases occurred in the Hospital Service for the Indigent (state-county) (HSI) program and in the Public Assistance Recipient (PAR) program of hospitalization. No doubt this was due to stabilization of the PAR program since transfer of many Old Age Assistance (OAA) recipients to the Medicare program and an increase in HSI appropriations by the counties. Total expenditure under both programs amounted to $7,398,778. Patient days decreased to 191,783 and admissions to the hospital to 22,993.

On December 31, 1968, 174 hospitals participated in the HSI and PAR programs, the same as last year. A total of 158 hospitals submitted cost statements to establish patient per diem rates. The average per diem rate of participating hospitals with established per diems amounted to $40.22 at the end of the year. This, compared to a rate of $36.94 one year ago, is an increase of 8.9 per cent for the year.

The maximum per diem rate allowed hospitals under the rules of the State Board of Health (SBH), Chapter 170E-3 increased to $52.44, effective August 1, 1968. Twenty-two hospitals were paid at the maximum rate by the end of the year.

Hospital Service for the Indigent (State-County) Program:

Chapter 401, Florida Statutes, authorizes hospitalization services for the acutely ill or injured, visiting nurse care and outpatient clinic service to the acutely ill, chronically ill or injured medically indigent persons. To date funds have not been available for services other than inpatient hospitalization; consequently, visiting nurse and outpatient clinic services have not been offered under the program.

The legislature appropriated $975,000 for the fiscal year 1968-69. During the year many counties appropriated more funds than was required by law to participate in the program and some $444,472 increase was experienced for the program. Tables 16 and 17 provide statistical and financial data. Admissions and patient days of hospitalization decreased again as a result of the rise in cost of hospital care. Average length of stay was 9.8 days, compared to 8.8 days in 1967.

Public Assistance Recipient Program:

The SBH administers the PAR program under the terms of an agreement with the Florida State Department of Public Welfare (SDPW). As a part of the agreement the SDPW reserves determination of indigency, final approval of medical diagnoses, and final authority for hospitalization payments to vendor hospitals.

The PAR program increased somewhat in size during the year. Total expenditures amounted to $2,545,061, compared to $2,151,314 for the year 1967. Admissions were almost the same as last year and days of hospitalization increased very slightly. The 12 days of hospitalization entitlement for recipients continued in effect during the year.

Advisory Committee to the Hospital Service for the Indigent:

Florida Statute 401 provides for an Advisory Committee to the HSI program. Members at the close of the year were: H. Phillip Hampton, M.D., Tampa, Chairman; Joseph F. McAloon, Coral Gables; Frank Kelly, Miami; Charles E. Manthey, M.D., Fort Lauderdale; Senator Robert M. Haverfield, Miami; State Representative Ted Alvarez, Jacksonville; State Representative Richard C. Hodes, Miami; Ben P. Wilson, Ocala; and Lamar Hancock, Live Oak. Two vacancies remain unfilled. One meeting was held during the year, on June 22, 1968. Recommendations were made by the Committee to require mandatory participation by counties within the program, also a change to 75 cents per capita for state and county participation.

RESERVATION INDIAN HEALTH PROGRAM

A full range of medical care is provided for the Seminole and Miccosukee Indians residing on 40 Mile Bend Reservation in Dade County, Dania Reservation in Broward County, Brighton Reservation in Glades County, and Big Cypress Reservation in Hendry County. Funds provided under a contract with the Division of Indian Health (USPHS), for the fiscal year 1968-69 amounted to $173,485. Of this, $151,000 is allocated for direct medical care with the remainder for public health nursing, field medical services and dental services at the county level. Of significant note was a redistribution in April of $5,000 within the contract to provide for dental services for children at the Dania Reservation. Beginning on July 1, 1968, physician services were paid on a usual and customary fee basis.

A bureau representative attended areawide Indian conferences conducted in Oklahoma City, Oklahoma, in February and December.

TABLE 16
MAJOR EVALUATION INDICES BY TYPE OF HOSPITALIZATION PROGRAMS, FLORIDA, 1968

Evaluation Order	Public Assistance Recipients	Hospital Service for the Indigent	Indian Hospital Program
Number of admissions	10,091	12,902	233
Days hospitalized	65,583	126,200	1,475
Total payment - State & Federal	$2,545,060.67		
Total payment - State & County		$4,853,717.27	
Total payment - Federal			$51,064.09
Average cost per day	38.81	38.46	34.62
Average cost per admission	252.21	376.20	219.16

Source: Applications processed and approved for payment reports.

TABLE 17

APPLICATIONS PROCESSED AND APPROVED FOR PAYMENT BY HOSPITALIZATION PROGRAM, BY COUNTY, FLORIDA, 1968

COUNTY	Public Assistance Recipients			Hospital Service for the Indigent		
	No. of Admissions	Days Hospitalized	Total Payments State and Federal	Admissions	Hospitalized	Total Payments State and Local
Total 1968	10,091	65,583	$2,545,060.67	12,902	126,200	$4,853,717.27
Alachua	116	909	37,788.92	287	2,096	86,122.92
Baker	16	111	3,989.91	28	154	5,921.08
Bay	91	620	20,749.77	51	576	20,322.20
Bradford	69	373	13,977.43	29	159	6,212.75
Brevard	116	747	31,222.70	467	4,858	199,466.69
Broward	454	3,224	130,335.13	531	8,714	319,316.99
Calhoun	59	297	9,005.18	20	87	3,482.50
Charlotte	44	239	8,114.07	54	505	16,675.80
Citrus	18	125	4,205.84	31	243	9,418.40
Clay	43	298	11,978.90	42	250	8,835.12
Collier	38	235	10,652.87	48	561	23,527.21
Columbia	107	572	17,926.15	84	551	21,910.07
Dade	1,534	11,655	541,409.63	1,362	15,302	690,360.16
De Soto	19	107	2,837.16	32	281	8,865.57
Dixie	11	93	4,290.47	15	73	3,107.05
Duval	692	4,565	163,143.24	1,379	9,470	332,921.80
Escambia	644	3,677	151,472.92	258	2,341	101,891.65
Flagler	10	94	3,025.70	15	137	3,575.19
Franklin	23	120	3,505.89	50	224	6,988.06
Gadsden	65	388	11,462.63	—	—	—
Gilchrist	15	92	3,344.06	17	49	2,148.30
Glades	7	42	1,999.52	—	—	—
Gulf	44	251	7,875.11	—	—	—
Hamilton	46	273	9,196.84	27	116	3,572.50
Hardee	6	46	1,785.21	21	290	9,170.49
Hendry	14	95	3,087.88	23	245	4,607.36
Hernando	49	293	9,410.99	24	174	7,497.44
Highlands	67	359	11,548.54	70	458	15,411.90
Hillsborough	1,251	8,156	306,041.68	2,158	23,245	845,458.81
Holmes	113	550	16,467.61	—	—	—
Indian River	61	385	17,006.13	50	435	18,626.96
Jackson	155	904	27,890.13	30	217	6,696.24
Jefferson	13	55	1,966.78	32	297	10,019.73
Lafayette	7	46	2,127.41	3	17	617.37
Lake	120	660	23,825.57	243	1,968	70,300.80
Lee	71	477	19,956.63	102	1,251	54,025.95
Leon	164	1,045	36,624.44	259	1,734	59,717.77
Levy	49	291	11,607.37	55	175	7,370.14
Liberty	19	95	2,925.99	3	13	459.42
Madison	57	298	9,414.12	35	310	10,185.13
Manatee	119	769	31,174.33	139	1,736	69,638.88
Marion	162	1,122	43,675.84	124	1,102	40,318.32
Martin	22	125	5,797.59	35	261	11,380.14
Monroe	54	371	14,096.12	123	1,011	38,300.26
Nassau	58	283	9,362.93	59	300	10,770.18
Okaloosa	216	1,144	35,614.92	155	848	28,584.08
Okeechobee	32	209	5,865.37	18	113	4,098.92
Orange	422	2,780	103,561.85	874	9,576	358,226.76
Osceola	86	472	12,480.32	65	403	11,765.60
Palm Beach	355	2,275	100,167.12	800	9,651	415,105.67
Pasco	67	498	16,962.69	165	864	31,241.29
Pinellas	419	2,772	102,356.53	582	7,399	267,485.16
Polk	80	567	20,148.47	578	2,256	71,681.18
Putnam	73	427	19,240.52	56	454	19,259.66
St. Johns	63	355	12,192.87	—	—	—
St. Lucie	97	628	24,942.14	178	2,832	104,070.47
Santa Rosa	177	1,095	39,806.88	63	618	23,568.98
Sarasota	120	891	37,315.04	331	3,573	142,296.14
Seminole	168	1,223	48,672.43	183	2,043	70,455.98
Sumter	28	147	5,510.97	41	231	8,797.41
Suwannee	45	262	7,357.01	70	431	16,265.71
Taylor	43	260	9,746.65	36	259	9,976.01
Union	45	342	6,348.17	15	90	3,982.29
Volusia	330	2,104	85,194.98	255	2,348	92,869.43
Wakulla	12	73	2,462.18	—	—	—
Walton	172	875	24,487.53	22	225	8,771.23
Washington	129	652	16,122.70	—	—	—

HOSPITAL LICENSING PROGRAM

The total number of hospitals licensed under this program did not change, therefore, increased attention was given to upgrading facilities and providing consultative services to administrators and the designing professions. The 192 licensed hospitals operating in the state at the beginning of the year reflect a trend toward elimination of substandard institutions or replacement by new facilities. In 1968 six hospitals ceased operation. One of these reverted to a clinic, four closed voluntarily, and one older substandard unit was phased out. The six hospital accessions acquired during the year account for three newly constructed facilities, one replacement of an older substandard unit, one previously built but not staffed until 1968, and the upgrading of one to meet licensure standards.

Alterations, renovations and additions to existing licensed hospitals resulted in a new algebraic increase of 1918 additional beds, and a new algebraic loss of 124 bassinets.

Among the major activities related to the hospital licensure program by the staff consultants, who serve both state licensure and Medicare programs, was the accomplishment of 246 licensure surveys of existing and new institutions. A significant workload item was pursued as a consequence of a contractual arrangement between the SBH and the SDPW, to ascertain the continued compliance of institutions participating in federal hospitalization programs as required under Title VI of the 1964 Civil Rights Act. The consultant staff conducted 208 surveys for this purpose. Such surveys were undertaken in connection with routine annual licensure surveys to determine compliance with regulations and standards in order to utilize staff resources as efficiently as possible. Specialized consultation visits were made to 139 hospitals to assist administrators and personnel in the solution of problems.

Consultant personnel reviewed 127 hospital construction plans with an estimated cost of $50,000,000 and held numerous conferences with sponsors, architects, and engineers, and carried on extensive correspondence in regard to the development of these projects.

There has been continued interest on the part of some hospitals and nursing homes for approval by the SBH for dual licensure, namely, to have a part of a facility licensed as a nursing home (extended care facility) and part as a medical or general hospital. This situation stems from the desire of institutions to provide a broad spectrum of care in which general hospital services, extended care services, and nursing home services can be rendered with continuity of patient care.

Work continued on development of recommended revisions of the hospital licensure regulations, which will be submitted for adoption consideration in early 1969.

Other staff activities included participation in an Institute on Hospital Air Conditioning Systems, presented by the College of Engineering, University of Florida, February 22-23; the Fourth Annual Hospital and Nursing Home Fire Fighting and Evacuation Seminar conducted by the Tampa Fire Department, May 15; 70th Annual Meeting of the American Hospital Association, Atlantic City, New Jersey, September 16-19; 19th Annual Fire Prevention Conference of the State Fire Marshal, Miami, October 15-16; Florida Hospital Engineers Annual Institute, Orlando, October 23-24; the Annual Meeting of the Florida Hospital Association, Jacksonville, December 4-6; and the concurrent meeting of the Florida Association of Hospital Pharmacists. Consultants also presented talks in areas of assigned responsibility to various districts of the Florida Nursing Home Association.

The hospital licensure program continues to be assisted by a statutory Advisory Hospital Council composed of the following members: Richard C. Commung, M.D., Ocala; Autha Forehand, Tallahassee; Walter D. Griffin, Jr., Jacksonville; William W. Richardson, M.D., Graceville; State Representative James H. Sweeny, Jr., DeLand; and John F. Wymer, West Palm Beach. The State Health Officer, Wilson T. Sowder, M.D., serves as chairman ex officio.

TABLE 18

HOSPITAL EVALUATION STATISTICS, FLORIDA, 1968

Licensure Status	Hospitals	Beds	Bassinets
Licensed at beginning of year	192	25,696	2631
Ceased to operate during year	6	235	12
Accessions during year	6	2,153	(112)
Licensed at end of year	192	27,614	2507
Unlicensed at end of year	0	0	0
Total subject to licensure at end of year	192	27,614	2507

MEDICARE PROGRAM

This bureau continued its responsibility for recertification of previously approved providers of services and the initial certification of new providers. Providers of services include hospitals, extended care facilities (parts of participating hospitals and nursing homes), home health agencies, and rehabilitation clinics. Other participants performing services for Medicare patients include approved independent laboratories and portable X-ray units. The statistics regarding the home health agencies and clinics will be included in the Home Health Services report and the independent laboratories statistics in the Bureau of Laboratories report.

Surveys were conducted of all providers during the year supplemented by consultation visits in facilities where problems were encountered. Each survey required the completion of a detailed comprehensive report which was submitted to the Social Security Administration with a recommendation as to the compliance of the facility with the "Conditions of Participation."

The following is a summary of the visits made by personnel of this bureau:

	Surveys	*On Site Consultations*
Hospitals	186	28
Extended Care Facilities	217	50

This activity resulted in the approval of 177 hospitals, an increase of four over the previous year; one hospital was denied approval, and one was involuntarily terminated, both due to non-compliance with the "Conditions of Participation." One hospital withdrew from participation due to lack of utilization by Medicare beneficiaries.

In the extended care facility program, 180 were approved, an increase of nine over the previous year, one was involuntarily terminated, and nine withdrew after being found in non-compliance with the "Conditions of Participation." An encouraging sign in the extended care facility program was the increase in hospital based extended care facilities which now total ten. Additional hospitals have expressed an interest in this dual certification status.

The problem of proper functioning of the utilization review committee in hospitals and extended care facilities was encountered in the majority of facilities surveyed. This required a considerable amount of consultation, which included follow-up visits, telephone and office conferences, and extensive correspondence. Continued emphasis will be necessary in this area. Increased availability of qualified dietitians, pharmacists, and medical records librarians had lessened the problems of extended care facilities in obtaining these consultants in some areas. The lack of qualified social workers to serve as consultants has been widespread throughout the state.

The program director and staff consultants participated in a conference on the "Conditions of Participation" for extended care facilities, with officials of the Federal Bureau of Health Insurance, March 18-20, and in a regional workshop for Medicare state agency representatives, April 10-11. Both activities were conducted in Jacksonville. Bureau staff engaged in extensive evaluation of the "Conditions of Participation" for providers of services. The program's administrative assistant conveyed the bureau's recommendations for modifications in a regional conference of the Bureau of Health Insurance in Atlanta, Georgia, August 8-9.

The immediate objective for the coming year will be increased consultation to the facilities certified with deficiencies to encourage corrective action, to survey new applicants for participation in the program, and to resurvey the facilities becoming due as required by the Social Security Administration.

NURSING HOME LICENSING PROGRAM

The total number of facilities licensed under the nursing home program for 1968 was 370 homes with a total of 27,573 beds, as compared with 357 homes licensed with 23,078 beds at the end of 1967.

The number of licensed nursing homes showed a new increase of 13 homes, 277 having been licensed in 1967 and 290 licensed in 1968. There were 18,339 beds in the 277 facilities in 1967 and 21,557 beds in the 290 facilities in 1968.

In the homes for the aged there was a decrease in facilities licensed. Sixty-seven facilities were licensed in 1967; in 1968, 66 facilities were licensed; but the total number of beds increased from 4334 in 1967, to 5582 in 1968. This increase in bed capacity arose from entry into the program of residential type homes for the aged.

In the special services homes there was an increase from 13 with 405 beds at the end of 1967 to 14 with 434 beds in 1968.

Applications for approval of plans for construction were received on 114 facilities. There were 68 preliminary plans and 84 final working drawings processed. The preliminary plans represented 7150 beds while the final working drawings represented 8867 beds at an estimated construction cost of $38,128,100.

The nursing home consultants made 147 field surveys and consultations in the nursing home program. These included surveys for renovation, special problems encountered by the county health departments in the consultative and administrative fields and Medicare problems when these problems became entangled with problems of licensure. There were approximately 300 office consultations on design, location and feasibility.

During the year considerable effort was expended in developing revised rules for the licensure of homes for the aged to encompass those homes constructed under the Housing and Urban Development program projects identified as HUD-202. This entailed several meetings with representatives of the Federal Government, sponsors of the HUD-202 projects and the Hotel and Restaurant Commission. Finally on August 18 the SBH approved new rules for licensing homes for the aged which recognize two types of facilities, i.e., institutional type homes which are the conventional homes for the aged, and residential type homes which provide for a maximum in independent living for residents. These rules were recorded with the Secretary of State on September 7, 1968 and this problem now seems to be resolved.

A continuing program was pursued in upgrading of substandard homes. During the year 11 nursing homes and six homes for the aged were closed.

Program representatives participated in the Florida State Building Code Conference sponsored by the Florida Development Commission, Tallahassee, August 7; American Hospital Association Annual Meeting, Atlantic City, September 15-19; Southern Building Code Congress, New Orleans, October 25-31; USPHS Committee Meeting on Uniform Nursing Home Survey Forms and Guidelines, Washington, D.C., December 8-10; and Florida Nursing Home Association Annual Convention, Clearwater, August 14-16.

TABLE 19

NURSING HOMES AND RELATED FACILITIES LICENSED AND NUMBER CEASING OPERATIONS, WITH NUMBER OF BEDS INVOLVED, BY COUNTY, FLORIDA, 1968

COUNTY	Number of Homes by Type				Bed Capacity of Home by Type			
	Nursing Homes	Homes for the Aged	Homes for Spec. Ser.	Total	Nursing Homes	Homes for the Aged	Homes for Spec. Ser.	Total
Alachua	3	1	—	4	262	11	—	273
Bay	3	—	—	3	249	—	—	249
Bradford	1	—	—	1	55	—	—	55
Brevard	5	1	—	6	321	54	—	375
Broward	16	—	3	19	1,552	—	71	1623
Citrus	1	—	—	1	116	—	—	116
Clay	1	—	—	1	33	—	—	33
Collier	2	—	—	2	219	—	—	219
Columbia	1	—	—	1	65	—	—	65
Dade	39	12	2	53	4,155	1,119	47	5,321
Duval	20	6	—	26	1,211	321	—	1,532
Escambia	4	1	1	6	366	9	52	427
Hardee	—	1	—	1	—	24	—	24
Hernando	1	—	—	1	37	—	—	37
Highlands	2	—	—	2	52	—	—	52
Hillsborough	26	1	1	28	1,395	64	28	1,487
Holmes	1	—	—	1	36	—	—	36
Indian River	3	—	—	3	126	—	—	126
Jefferson	1	—	—	1	65	—	—	65
Lake	7	3	—	10	536	58	—	594
Lee	3	2	—	5	237	420	—	657
Leon	3	—	—	3	149	—	—	149
Levy	2	—	—	2	75	—	—	75
Manatee	7	3	1	11	361	168	12	541
Marion	2	—	—	2	181	—	—	181
Martin	1	—	—	1	60	—	—	60
Okaloosa	1	—	—	1	60	—	—	60
Okeechobee	—	1	—	1	—	10	—	10
Orange	16	4	—	20	1,249	696	—	1,945
Osceola	3	3	—	6	152	38	—	190
Palm Beach	17	6	—	23	1,260	399	—	1,659
Pasco	5	2	—	7	160	15	—	175
Pinellas	53	10	1	64	4,326	1,360	42	5,728
Polk	12	3	—	15	500	92	—	592
Putnam	2	—	—	2	50	—	—	50
St. Johns	3	2	—	5	161	252	—	413
St. Lucie	1	2	—	3	115	44	—	159
Sarasota	10	1	—	11	784	271	—	1,055
Seminole	3	3	3	9	149	76	18	243
Sumter	1	—	—	1	25	—	—	25
Suwannee	1	—	—	1	44	—	—	44
Volusia	18	3	2	23	1,091	281	164	1,536
Washington	—	1	—	1	—	15	—	15
SUBTOTALS	301	72	14	387	22,040	5,797	434	28,271

CEASING OPERATIONS IN 1968

COUNTY	Number of Homes by Type				Bed Capacity of Home by Type			
	Nursing Homes	Homes for the Aged	Homes for Spec. Ser.	Total	Nursing Homes	Homes for the Aged	Homes for Spec. Ser.	Total
Dade	3	1	—	4	177	65	—	242
Duval	—	1	—	1	—	20	—	20
Escambia	1	—	—	1	150	—	—	150
Hillsborough	1	—	—	1	30	—	—	30
Indian River	1	—	—	1	30	—	—	30
Orange	2	—	—	2	47	—	—	47
Osceola	—	1	—	1	—	12	—	12
Palm Beach	1	1	—	2	20	14	—	34
Pinellas	1	—	—	1	16	—	—	16
Volusia	1	2	—	3	13	104	—	117
SUBTOTALS	11	6	—	17	483	215	—	698
TOTALS	290	66	14	370	21,557	5,582	434	27,573

TABLE 20

HOMES LICENSED UNDER FLORIDA NURSING HOME LAW BY TYPE OF OWNERSHIP AND BED CAPACITY, FLORIDA, DECEMBER 31, 1968

TYPE OF OWNERSHIP AND BED CAPACITY	Nursing Homes		Homes for Aged		Homes for Spec. Services		All Homes	
	Number	Beds	Number	Beds	Number	Beds	Number	Beds
TOTAL	290	21,557	66	5,582	14	434	370	27,573
Type of Ownership:								
Proprietary	240	18,178	31	906	7	99	278	19,183
Church	28	1,312	20	2,522	1	134	49	3,968
Other Voluntary	14	1,270	10	2,052	6	201	30	3,523
Public	8	797	5	102			13	899
Bed Capacity:								
1 - 25	41	749	31	394	7	79	79	1,222
26 - 50	79	3,184	9	293	5	169	93	3,646
51 - 100	109	8,214	13	1,099	1	52	123	9,365
101 - 200	52	6,899	5	775	1	134	58	7,808
201 - 300	7	1,763	4	1,051			11	2,814
301 - 400	1	322	3	1,118			4	1,440
401 - 500	1	426					1	426
Over 500			1	852			1	852

BUREAU OF LABORATORIES

NATHAN J. SCHNEIDER, Ph.D., M.P.H.
Director

WARREN R. HOFFERT, Ph.D., M.P.H.
Assistant Director

Laboratory services were provided to the county health departments (CHD) and to bureaus and divisions of the State Board of Health (SBH) in support of their active public health problems. Diagnostic and reference laboratory services were also made available to licensed practitioners of the healing arts, to private and hospital laboratories and to law enforcement agencies.

Emphasis was given to the implementation of the newly assigned regulatory responsibilities during the year under review as follows:

Registration of clinical laboratories and licensure of clinical laboratory personnel as provided in the Florida Clinical Laboratory Law, Chapter 483 F.S.;

Issuance of permits to qualified laboratory personnel to perform the quantitative chemical determination of alcohol in the blood in accordance with Chapter 322 F.S.; and

Certification of independent clinical laboratories by the Social Security Administration (SSA) for participation in the Medicare Program of the Federal Government.

DIAGNOSTIC SERVICES

In general, the same types of diagnostic services were provided during 1968 as in previous years. As indicated in Table 21, 3,010,490 examinations were performed, an increase of 6.1 per cent over 1967. Significant increases were noted in syphilis serology, nose and throat cultures, gonorrhea smears and cultures, mycology and in clinical, forensic and water chemistries.

The continued emphasis on syphilis examinations of blood specimens from health card applicants accounted for an increase of 5.5 per cent over last year. The relative efficacy of annual retesting the health card applicant group as a case finding procedure for syphilis infections is subject to question.

A 22.7 per cent increase in the number of nose and throat specimen examinations over the previous year was accounted for largely by a 34.2 per cent increase in examinations performed in the Jacksonville laboratory.

The overall decrease in tuberculosis bacteriology (5.6 per cent) was related to a decrease in the Jacksonville laboratory, offset somewhat by an increase of examinations in the South Florida area, particularly in the Miami and Tampa laboratories. There was also noted a continued decentralization of the tuberculosis workload from Jacksonville to the Tampa laboratory, made possible by the newly built facilities in Tampa.

The number of smear and culture examinations for *Neisseria gonorrhea* increased 10.4 per cent over the previous year. All of the laboratories experienced an increase except Jacksonville and Orlando.

The overall load of bacteriological stool examinations for enteric pathogens increased slightly (2.0 per cent). Increases in the number of stool specimens performed in the Tampa, Miami and Tallahassee laboratories did not offset a 29.8 per cent decrease in enteric workload by the Orlando laboratory.

The number of examinations of diagnostic smears and cultures on miscellaneous exudates and transudates decreased by 3.9 per cent for the bureau. All of the laboratories experienced a decrease except Tallahassee which noted an increase of 63 per cent due to the submission of more specimens from the patients in the Sunland Training Center Hospital, in which the regional laboratory is housed.

The overall workload in sanitary bacteriology decreased during 1968, although certain of the regional laboratories, including Tallahassee, Pensacola and Orlando experienced moderate increases. The Pinellas County Health Department laboratory had a 10 per cent increase in the examinations of drinking and swimming pool waters.

Dental caries bacteriology continued its steady decrease from a high of 8572 examinations in 1962 to the current low for 1968 of 2821 examinations. This special laboratory service for the practicing dentists is not being fully utilized.

Intestinal parasite examinations decreased by 11.5 per cent during 1968 as compared to 1967. This change continues a downward trend which was noted last year.

The overall forensic chemistry workload (i.e., toxicology, etc.) remained unchanged during the year. Considering this activity by laboratory, however, there were decreases of 14.1 per cent in Jacksonville and 13 per cent in Tampa, respectively, as compared to a 25.1 per cent increase in Miami. The bureau is inadequately staffed with sufficient chemists to satisfy the demands for this service. With only toxicological chemists assigned to the bureau, a total of 31,724 examinations was made involving 692 court cases. The chemists spent 985 man hours of court and travel time.

The number of PKU Guthrie tests performed in the Miami and Jacksonville laboratories continued on an upward trend from 44,648 in 1966, 56,978 in 1967 and 61,003 in 1968. Physicians are becoming increasingly more aware of this program and are screening newborn infants.

The overall workload in the virology section increased moderately during the year under review, both with regard to viral isolations and viral serology. There appeared to be an increased concern with certain of the viral diseases.

The number of rabies examinations increased in the Jacksonville, Tampa, Miami and Orlando laboratories. There was a moderate decrease in the remaining laboratories.

The results of examinations for all laboratories are presented in Table 22. A total of 806,286 specimens was examined for syphilis serology, and 32,153 or 4 per cent were reactive. Test procedures offered by the bureau consisted of the VDRL slide test which is performed routinely as a qualitative and quantitative procedure and the FTA-abs test on problem cases requiring further study.

The number of nose and throat specimens positive for diphtheria was 48 (0.3 per cent). This compares favorably with the proportion positives found since 1965 which has been less than one per cent. It emphasizes, however, the difficulty in completely eradicating diphtheria and/or similar infections from the general population. The proportion of throat specimens positive for streptococcal infections was 22.6 per cent, a moderate increase as compared to 1967.

A total of 67,704 specimens examined for *M. tuberculosis* and atypical mycobacteria yielded 5093 (7.8 per cent) positives. This compared with 8.4 per cent positive in 1967 and 9.2 per cent in 1966.

Smear examinations for the presence of Gram negative diplococci resembling *N. gonorrhea* (G.C.) increased from 63,915 in 1967 to 71,296 in 1968. Despite the increased numbers examined, the proportion positive (14.5 per cent) was similar to that found in 1967. In contrast, 25,608 G.C. cultures yielded an increased proportion positives 13 per cent as compared to 11.5 in 1967 and 8.7 per cent in 1966.

There was little or no change in the proportion of specimens positive for typhoid and other *Salmonellae* and for *Shigella* in 1968 as compared to the preceding year.

Included in the miscellaneous specimens examined for diagnostic bacteriology reported in Table 22 were 138 darkfield positive *(T. pallidum)* lesions, all reported from the Miami laboratory as part of the Dade County Department of Public Health's V.D. clinic. The proportion positive decreased from 42.7 per cent in 1967 to 35.0 in 1968.

There was a continued rise in the number of antibiotic sensitivity tests performed in the bureau, 1928 specimens in 1968 as compared to 1239 in 1967 and 304 in 1966. Most of this increase reflects the work done in the Tallahassee laboratory to serve the needs of the Sunland Training Center for Mentally Retarded Children in which that laboratory is housed.

The proportion of specimens positive for hookworm (2.8 per cent), ascaris (3.9 per cent) and *E. histolytica* (.07 per cent) decreased moderately during 1968 as compared to the preceding year. Enterobius positive (2.7 per cent) specimens remained unchanged and the per cent positive for Trichuria (1.5 per cent) increased slightly.

Fourteen positive malaria specimens were referred to the laboratory for diagnosis and/or confirmation. This represents threefold increase in comparison with 1967. However, as before, all were determined to be non-indigenous cases in servicemen or civilians returning from known endemic areas. There were 11 *P. vivax* and three *P. falciparum* infections.

The proportion positive (44.5 per cent) of mycological cultures examined in 1968 increased from 1967. As before, most of the positives were *C. albicans* infections and certain of common dermatophytes.

In chemistry, there was a continuing increase in blood sugar determinations (34,536 in 1968 as compared to 30,445 in 1967) as part of the increased emphasis on case finding for unknown diabetics. The number of blood specimens submitted to the laboratory represent only a portion of the population screened for diabetes, inasmuch as most CHD's utilize the dextrostix method to prescreen and submit for confirmation bloods from those patients who yield an elevated reading. Hemoglobin, cholesterol and other clinical determinations are limited to specimens submitted by CHD's as part of their Maternal and Infant Care and chronic disease case finding programs.

The radiological chemistry laboratory is located in the Orlando laboratory. The overall specimen load decreased moderately from the previous year due in part to the submission of fewer environmental specimens from the Cape Kennedy offsite monitoring program. Sufficient background data has been accumulated over the past four years to permit this reduction. Testing of environmental specimens collected from the anticipated site of a nuclear reactor in Dade County continued during 1968.

The viral and rickettsial diagnostic services were provided by the central laboratory in Jacksonville and coordinated with examinations performed at the Epidemiological Research Center (formerly Encephalitis Research Center) in Tampa. As shown in Table 23, the respiratory disease patterns were largely associated with influenza A, *Mycoplasma pneumoniae* and parainfluenza 1 and 3. The temporal appearance of human cases is of interest. During January and February, 32 of the 51 influenza cases were positive for influenza A2-62 antigenic strain. A new strain, influenza A2-68HK (Hong Kong) made its first appearance in November and accounted for most of the remaining 21 positives reported for 1968. Influenza B strains which were not found in 1967, made first appearance during 1968 in two cases in December. The parainfluenza and Eaton agent infections were found throughout the cooler seasons of the year.

In contrast to 1967 when no rubella infections were confirmed in the laboratory, there were in 1968, 11 positive cases. This trend portends an expected increase for the next year unless of course the newly developed vaccine becomes available for use in the general population.

As in the past, there was evidence of central nervous system (CNS) disease associated with *Coxsackie* and *ECHO* viruses. Four mild polio cases yielded vaccine strains of polio virus on laboratory studies.

The Venezuelan encephalitis (VE) virus associated case in Florida represented the first laboratory proven human case in the United States. This was a 50 year old female in the Dade County (Homestead) area. Previous evidence of VE virus infections in mosquitoes and rodents had been found. In man, there was evidence of past infections as indicated by low antibody titers against VE in the native Indian population on Brighton Reservation.

SPECIAL STUDIES

The bureau continued its program of applied research and special studies as listed in Tables 21 and 22.

The complete identification and serological typing of *Salmonella* and *Shigella* strains isolated in state and private hospital and clinical laboratories were done in the central laboratory as part of its special studies program. A total of 1803 *Salmonella* was typed in 1967. Included in these were isolates from frozen eggs, and animal feeds examined by the Florida State Department of Agriculture. The increased interest in *Salmonella* infections in man and animals, as well as its contamination in food products, can best be appreciated by the fact that only 786 cultures were typed in 1960, a 230 per cent increase.

The bureau (Jacksonville and Miami laboratories) participated in the Dade County Pesticide studies (see report of Bureau of Research) and a national monitoring program to determine pesticide levels in humans. This research, supported in part by a contract with the U.S. Public Health Service (USPHS), has given the laboratory the technical competence to determine quantitatively levels of chlorinated hydrocarbons and organophosphatic pesticides. However, contractural commitments in numbers of specimens to be tested did not permit the capability to serve the direct needs of the Bureau of Sanitary Engineering and Entomology. During 1968, a total of 2838 specimens was examined, less than 25 of these originated from these bureaus.

As in the past several years, statewide surveillance for arthropod-borne viruses has continued since the 1962 St. Louis Encephalitis outbreak in the four county Tampa Bay area. This surveillance was coordinated with the research carried out in the Tampa Bay area by the Epidemiological Research Center (see report elsewhere) and that of the USPHS National Communicable Disease Center (NCDC) which made collections of mosquitoes and biological specimens in Dade and Monroe Counties, in and around the Everglades National Park. In addition to the testing of specimens for suspect human cases of CNS disease, laboratory examinations of tissue and entomological specimens collected throughout Florida served as an index of arbovirus activity. A total of 694 pools of mosquitoes and 1070 serum specimens from chickens, horses, birds, rodents and other field specimens were examined. As compared to 1967, there seemed to be reduced evidence of the arbovirus, except for Venezuelan encephalitis virus in the Dade County area. The presence of the latter virus was confirmed by isolations from the *Culex melanoconium* species of mosquitoes, collected and tested by NCDC. Of greater significance were two isolations of St. Louis Encephalitis (SLE) virus which were made by NCDC from *Culex nigripalpus* mosquitoes collected in October from the Everglades National Park. Except for an isolation made by NCDC from a pool of mosquitoes collected in 1964, SLE virus has not been found in Florida since 1962, despite the intensive efforts by SBH and NCDC.

In anticipation of the soon to be available rubella (German measles) vaccine, a study was carried out in Hillsborough County to determine the immunity status of women in the childbearing age. Sera from 741 women were tested for the presence of hemagglutinating antibodies and it was found that 77.5 per cent had demonstrable titers for rubella.

In the Miami Regional Laboratory (Table 22), a total of 12,318 specimens from the Maternal and Infant Care (MIC) and Head Start programs was examined. These special services indicate active programs in the Dade County area. The other laboratories in the bureau examined specimens for similar programs in other counties, however, these statistics were included as part of the routine diagnostic workload in Tables 21 and 22, because there was no convenient way to recognize the purpose or background of the specimens submitted to the laboratory.

Airborne pollen studies were carried out. Two collecting stations, one each in Jacksonville and in Orlando were maintained during this year. Several county health units, stimulated by earlier studies, established collecting stations in their local area and gathered for their immediate use. The bureau will continue to maintain the stations in Jacksonville and Orlando only in order to continue its capability.

The bureau embarked on a pilot screening program for coronary heart disease, conceived and implemented by the Bureau of Adult Health and Chronic Diseases. A total of 11,020 blood specimens was tested for hemoglobin, glucose, uric acid, cholesterol, triglycerides, and lipoprotein electrophoresis. This program was offered to a limited number of CHD's in north Florida. An expansion of this program must await more adequate budgetary support.

The Pensacola Regional Laboratory carried out a special project with the Escambia CHD, in which serum protein electrophoretic patterns were determined on arrested tuberculosis patients and other selected patients in health department clinics.

CONSULTATIVE AND EDUCATIONAL SERVICES

Technical workshops and short courses were conducted in (1) rubella serology - one day workshops in Tampa, Miami and Jacksonville; (2) identification of *T. pallidum* by darkfield microscopy; (3) laboratory diagnosis of infectious mononucleosis; and (4) coliform testing of water by Membrane Filter and Lactose Fermentation Techniques. A total of 67 microbiologists and/or medical technologists, 69 sanitarians and water plant operators and 11 venereal disease program representatives attended these formal courses. In addition, 331 man days of bench training and 375 hours of lecture and orientation were provided to physicians, medical technologists, CHD personnel and other scientific groups. A total of 18 staff members attended training or refresher courses in clinical, pesticide and radiological chemistry, syphilis serology, virology, bacteriology and mycology.

Rules and regulations on the recently enacted Clinical Laboratory Law (Chapter 483 F.S.) were filed with the Secretary of State on June 28, 1968 providing the basis for processing of applications received from over 475 laboratories and 4,500 individuals. By agreement with the Office of Registration and Drug Administration which is responsible for the administration of the law, determination of eligibility for registration of laboratories and licensure of personnel was made by this bureau. Because of the large volume of records involved, the production of fee notices and certificates was handled on the computer by the Division of Data Processing. There were totals of 467 laboratories registered and 3,626 personnel licensed. In Table 24 are shown a summary of the types of certificates issued. Inasmuch as qualifications for licensure of existing personnel and registration of existing laboratories were based on grandfather provisions of the law, these initial certificates were dated from June 30, 1967, the effective date of the law.

The bureau participated actively in the implementation of the Implied Consent Law, Chapter 361 and 362 F.S. Rules and regulations were formulated and adopted by the SBH and filed in the office of the Secretary of State on June 28, 1968. A total of 48 laboratorians wishing to perform blood alcohol tests on tissues other than breath was certified to the office of Registration and Drug Administration for issuance of permits. Proficiency testing specimens were sent to prospective permittees to determine their ability to perform blood alcohol test procedures. Two outside laboratories, viz. State Laboratory in Connecticut and the toxicology laboratory of the Armed Forces Institute of Pathology served as reference units for the proficiency testing program.

Certification of independent laboratories as providers of service under the federally sponsored Medicare program was carried out by the bureau. The bureau completed 126 site surveys to interested laboratories and submitted evaluations to the Social Security Administration (SSA) as to whether the laboratories complied with the requirements by SSA. There were 122 laboratories certified by that agency.

Inspections were conducted in 15 commercial, public health and dairy laboratories for certification of performance in bacteriological, chemical and physical tests in accordance with standard methods and USPHS requirements for interstate milk shipments and in 30 regional public health, CHD and water plant laboratories for certification of water testing procedures. A total of 338 clinical laboratories was approved to perform premarital and prenatal serological tests for syphilis. All of the approved laboratories were required to demonstrate proficiency by examining a series of evaluation specimens sent out as part of these certification programs.

OCCUPATIONAL HEALTH

Responsibilities of the occupational health section include technical assistance and consultative service concerning occupational health problems to the Workmen's Compensation Division of the Florida Industrial Commission (FIC) as prescribed by state law. Technical services and assistance are provided for CHD's, state and federal agencies, industry, labor groups, and private citizens.

Since the incorporation of the occupational health section into the Bureau of Laboratories (1967), the section has continued to function in response to requests or complaints received from the above agencies, groups or individuals.

Field Activities — The number of concerns contacted or given service increased to 55 as compared to 45 for the previous year. Visits to 16 of the firms contacted were made in conjunction with the industrial hygiene program initiated by the Manatee CHD together with the cooperation and assistance of the USPHS. Loss of experienced personnel and the training of replacements have served to limit the field activities of the occupational health program.

An increase in the interest of industrial management regarding the potential health hazard to employees routinely exposed to high noise levels was reflected in the 14 noise studies performed compared to seven studies performed the previous year. Noise induced hearing loss has been compensable in Florida since 1965.

The senior chemist attended two week-long training courses sponsored by the USPHS at Cincinnati covering metal analysis by atomic absorption and health hazards associated with the use of isocyanates. A statewide survey to determine the extent to which isocyanates are used by industry and the related health hazards to employees is planned for the current year.

Laboratory Activities — Analyses and examinations completed in the laboratory totaled 411, a reduction from the 577 noted for the previous year. Biological samples submitted to the laboratory for lead analysis again constituted the largest number of samples of a given type. A total of 238 specimens was submitted for analysis.

The use of atomic absorption for lead and other metal analyses has substantially reduced the time formerly required to perform metal determinations in the laboratory and has increased the capabilities of the occupational health laboratory.

The occupational health section has continued the daily operation and maintenance of the high volume air sampler and the precipitation collector for the collection of airborne particulates and rainwater samples, respectively, for the Radiation Alert Network of the USPHS.

FIELD ACTIVITIES

Number of persons or establishments given service	55
Workers employed	6065

PERSONNEL VISITS TO PLANTS

Self-initiated	14
Requests or complaints	40
Agency referrals	1
Revisits	15
Total	70

SERVICES RENDERED

Routine inspection	14
Industrial hygiene survey	33
Technical study	17
Consultation	4
Follow-up	6
Discuss report	2
Non-occupational investigation	5
Total	81

FIELD DETERMINATION OF ATMOSPHERIC CONTAMINANTS OR CONSTITUENTS

Perchloroethylene	2
Styrene	3
Carbon monoxide	5
Carbon dioxide	2
Moisture	1
Total	13

PHYSICAL CONDITIONS

Noise measurements	39
Ventilation	19
Relative humidity	7
Temperature	18
UV light	6
Total	89

LABORATORY ACTIVITIES

Material	Type of Sample	Source	Analysis
Lead	Human fluids and tissues	Physician, Hospital, Industry, State and Federal Agency	244
	Atmospheric, Water, Paint, Toys and other		49
Fluorides	Atmospheric, Biological fluids	Industry, State Agency	28
Mercury	Biological fluids	Hosp., State Agency	9
Magnesium	Biological fluids	Hospital	2
Zinc	Atmospheric, Water, Biological fluids	Hospital, State Agency, Industry	6
Free Silica	Sand blast material	Industry	2
Formaldehyde	Atmospheric.	State Agency	4
Arsenic	Biological fluids	State Agency	2
Oxygen, carbon dioxide carbon monoxide, moisture, oil mist-particulates, odor	Compressed air	Industry	41
Dust counts	Atmospheric	Industry	9
Miscellaneous, microscopic examination, pH, specific gravities, boiling points, solubilities	Material of unknown composition	Industry, State Agencies	15
		Total	411
Blanks, controls, standards, reagents			314
		Total	725

Samples Collected for Laboratory Analysis

Compressed air for oil mist-particulates	3
Paraffin mist	4
Biological for lead	6
Biological for fluoride	8
Atmospheric for formaldehyde	4
Atmospheric for zinc	3
Atmospheric for lead	9
Atmospheric for fluoride	7
Atmospheric for dust counting	9
Total	53

OCCUPATIONAL DISEASE REPORTS RECEIVED THROUGH FLORIDA INDUSTRIAL COMMISSION, 1968

Dermatitis by cause		58
Detergents or other chemicals	5	
Cement	4	
Plants and vegetables	3	
Citrus	5	
Agricultural chemicals	0	
Seafoods, other foods	15	
Paint, petroleum products, solvents	4	
Miscellaneous	22	
Systemic poisoning by cause		19
Parathion	12	
Chemical, excluding parathion	7	
Conjunctivitis by cause		34
Welders	34	

Revision 1968 of previously published list of laboratories approved for premarital and prenatal serology:

ADDED

Alvarez Medical Laboratory, 196 Vining Court, Ormond Beach
Bio-Chemical Laboratory, 255 N. Lakemont Avenue, Winter Park
Biscayne Serum Products, Inc., 8224 Biscayne Boulevard, Miami
Boca Raton Community Hospital, 800 Meadows Road, Boca Raton
Calhoun General Hospital, Blountstown
Cape Coral Medical Clinic, 4537 Coronado Parkway, Cape Coral
Chehy Clinical Laboratory, 17 S. W. 12th Street, Ocala
Doctors Clinical Laboratory of Gainesville, 905 S. W. Second Avenue, Gainesville
Doctors Hospital of Sarasota, Inc., 2750 Bahia Vista Street, Sarasota
Doctor Ira C. Evans Laboratory, 666 Sixth Street, South, St. Petersburg
Doctor James F. Day Laboratory, 32 Sherwood Square, Jacksonville
Doctor Tobias R. Funt, 4800 N. E. 20th Terrace, Fort Lauderdale
DuFont Clinical Laboratory, Inc., 1707 Coral Way, Miami
Gelpi Medical Laboratory, 3641 West Flagler Street, Miami
Keys Community Hospital Laboratory, P.O. Box 27-E, Islamorada
Medical Arts Laboratory, 744 Harrison Avenue, Panama City
Medical Clinical Laboratory, 1503 24th Street, Vero Beach
Miami Heart Institute, 4701 North Meridian Avenue, Miami Beach

Midtown Medical Laboratory, 333 Arthur Godfrey Road, Miami Beach
Palm Spring General Hospital, 1475 W. 49th Street, Hialeah
Penbay Biological Analytical Laboratory, Inc., P.O. Box 447, Pensacola
Plantation General Hospital Laboratory, P.O. Box 12251, Plantation
Pompano Beach Hospital, 155 East Atlantic Boulevard, Pompano Beach
Rely Biochemical Laboratory, 410 N. W. 27th Avenue, Miami
Rogers Clinical Laboratory, 501 First Federal Building, St. Petersburg
Tri-Arts Medical Laboratory, 1001 N. W. 54th Street, Miami
Veterans Administration Hospital, Gainesville

REMOVED

A. A. Gonzalez Clinical and Hospital Laboratory, Inc., 1915 14th Street, Tampa
Broadway Medical Laboratory, 135 Broadway, Daytona Beach
Clara Frye Memorial Hospital, 1814 Riverside Avenue, Tampa
Doctor Alvin J. Kahn Laboratory, North Brevard Medical Center, Indian River
Doctors' Horton and Raulerson Laboratory, Osceola and 10th Avenue, Okeechobee
Edmark Clinical Laboratory, 3537 5th Avenue North, St. Petersburg
Miami X-Ray and Clinical Laboratory, Olympia Building, Miami
Miles Medical Laboratory, Inc., 1331 E. Cass Street, Tampa
Murray Clinical Laboratory, 2304 Salzedo Street, Coral Gables
Pasadena Medical Laboratory, 1609 Pasadena Avenue South, St. Petersburg
Physicians and Surgeons Laboratory, 1674 Meridian Avenue, Miami Beach
Sunland Training Center Laboratory, P.O. Box 852, Marianna

TABLE 21
EXAMINATIONS PERFORMED BY FLORIDA STATE BOARD OF HEALTH LABORATORIES, 1968

Examination	Central Laboratory Jacksonville	Tampa	Miami	Pensacola	Talla-hassee	Orlando	West Palm Beach	Pinellas County	Brevard County	TOTALS
GRAND TOTALS	1,015,530	506,878	679,123	166,188	173,398	202,458	173,060	59,097	34,758	3,010,490
SEROLOGY										
Syphilis	235,155	207,210	264,546	47,215	36,633	82,865	77,218	......	......	950,842
Agglutination & related tests	929	225	742	3	47	1	11	......	......	1,958
Blood typing (Rh)	3,875	6,699	2,824	1,072	1,161	2,803	1,360	......	......	19,794
DIAGNOSTIC BACTERIOLOGY										
Diphtheria & associated infections	27,508	7,988	2,281	54	29	4	778	......	......	38,642
Tuberculosis	105,285	34,025	58,976	9,735	7,901	......	21,829	......	......	237,751
G.C. - smear	28,387	32,028	55,303	6,037	12,617	4,754	2,236	......	810	142,172
culture & fluorescent antibody	34	18,048	5,226	2,671	2,850	2	......	......	......	28,831
Enteric	98,392	51,814	26,320	13,985	33,385	15,478	9,338	......	......	248,712
Leptospirosis	1,883	......	......	......	......	......	......	......	......	1,883
Miscellaneous	76,327	3,850	8,665	1,623	37,881	11,759	2,395	......	......	142,500
SANITARY BACTERIOLOGY										
Dairy products	17,793	39,254	18,204	14,058	9,288	11,072	14,090	22,706	4,560	151,025
Water, drinking & pools	35,376	40,238	30,205	12,575	12,147	30,981	27,637	24,969	5,446	219,574
Pollution	13,283	13,179	16,605	4,345	3,706	3,430	5,606	5,716	10,915	76,785
Food (sanitary quality tests)	1,460	133	161	98	140	406	......	189	4,067	6,654
Food poisoning	240	356	1,026	272	48	408	......	194	47	2,591
Utensils - swabs	227	98	......	......	......	1,534	......	47	506	2,412
DENTAL CARIES BACTERIOLOGY	2,821	......	......	......	......	......	......	......	......	2,821
PARASITOLOGY										
Intestinal parasites	40,306	18,413	10,139	11,903	8,018	11,766	3,999	......	......	104,544
Toxoplasmosis	5,580	......	......	......	......	......	......	......	......	5,580
Malaria	32	28	9	2	......	4	......	......	......	75
MYCOLOGY	20,630	39	153	150	93	582	192	......	......	21,839
CHEMISTRY										
Blood	20,314	13,360	1,907	10,425	6,417	2,114	5,926	......	......	60,463
Spinal fluid	88	......	480	......	......	......	......	......	......	568
Urine	450	......	6	......	......	381	445	......	......	1,282
Toxicology, narcotics, drugs & cosmetics	11,330	7,201	13,193	......	......	......	......	......	......	31,724
Water	7,783	......	354	......	......	......	......	5,276	3,785	17,198
PKU SCREENING	21,908	......	39,095	......	......	......	......	......	......	61,003

TABLE 21 (Continued)
EXAMINATIONS PERFORMED BY FLORIDA STATE BOARD OF HEALTH LABORATORIES, 1968

Examination	Central Laboratory Jacksonville	Tampa	Miami	Pensacola	Talla-hassee	Orlando	West Palm Beach	Pinellas County	Brevard County	TOTALS
RADIOLOGICAL CHEMISTRY										
Water (ground & precipitation)	......	......	......	......	......	4,130	......	......	......	4,130
Air	......	......	......	......	......	2,116	......	......	......	2,116
Milk	......	......	......	......	......	2,200	......	......	......	2,200
Vegetation	......	......	......	......	......	4,830	......	......	......	4,830
Soil, Biota & other	......	......	......	......	......	6,720	......	......	......	6,720
VIRAL SEROLOGY										
Hemagglutination-inhibition	6,508	......	......	......	......	......	......	......	......	6,508
Neutralizations	320	......	......	......	......	......	......	......	......	320
Complement-fixation	33,206	......	......	......	......	......	......	......	......	33,206
VIRAL ISOLATIONS (except rabies)	8,242	......	......	......	......	......	......	......	......	8,242
Rabies - microscopic	4,436	4,928	2,220	1,108	460	2,118	......	......	......	15,270
-fluorescent antibody	10,138	7,764	3,342	1,507	577	......	......	......	......	23,328
-mouse inoculation	90	......	......	......	......	......	......	......	......	90
SPECIAL PROJECTS										
Salmonella typing	10,818	......	......	......	......	......	......	......	......	10,818
Community pesticides study	98,390	......	50,556	......	......	......	......	......	......	148,946
Arthropod-borne virus surveillance	13,570	......	......	......	......	......	......	......	......	13,570
Rubella surveillance	2,961	......	......	......	......	......	......	......	......	2,961
Maternal & infant care - Headstart	......	......	66,585	......	......	......	......	......	......	66,585
Airborne pollen studies	1,164	......	......	......	......	......	......	......	......	1,164
Air pollution study	......	......	......	......	......	......	......	......	4,622	4,622
Coronary disease - screening	48,291	......	......	......	......	......	......	......	......	48,291
Protein electrophoresis	......	......	......	27,350	......	......	......	......	......	27,350

TABLE 22

SPECIMENS SUBMITTED TO STATE BOARD OF HEALTH LABORATORIES FOR EXAMINATIONS BY FINDINGS, FLORIDA, 1968

EXAMINATIONS	Number of Specimens				
	Positive Specimens				
	One or More Positive Findings	Positive for Findings Indicated	Negative	Unsat.	Total
SEROLOGY					
Syphilis	32,153	—	762,705	11,428	806,286
Agglutination and related tests	230	—	1,451	47	1,728
Typhoid	—	54	—	—	—
Typhus	—	1	—	—	—
Brucellosis	—	16	—	—	—
Tularemia	—	3	—	—	—
Heterophile	—	154	—	—	—
Blood typing (Rh)	—	—	—	—	14,238
DIAGNOSTIC BACTERIOLOGY					
Diphtheria and associated infections	9,261	—	5,411	19	14,691
C. diphtheria	—	48	—	—	—
Streptococci	—	3,323	—	—	—
Other	—	10,480	—	—	—
Tuberculosis	5,093	—	60,405	2,206	67,704
Sputum	—	4,853	—	—	—
Aerosol	—	186	—	—	—
Other	—	48	—	—	—
Gonorrhea—smears	42,519	—	28,357	420	71,296
Intracellular Germ negative diplococci	—	10,303	—	—	—
Extracellular Gram negative diplococci	—	500	—	—	—
Trichomonads	—	7,449	—	—	—
Yeasts	—	3,745	—	—	—
Vincents organisms	—	551	—	—	—
Many pus cells	—	23,394	—	—	—
Gonorrhea cultures and FA	3,224	—	21,628	758	25,608
Enteric infections	1,759	—	57,714	266	59,739
S. typhosa	—	67	—	—	—
Other Salmonella	—	1,311	—	—	—
Shigella (flexneri and sonnei)	—	249	—	—	—
Other	—	132	—	—	—
Leptospirosis	43	—	438	1	482
Miscellaneous	11,314	—	3,395	28	14,737
Darkfield—T. pallidum	—	138	—	—	—
Chancroid—granuloma	—	16	—	—	—
Gonococcus in eye	—	4	—	—	—
Other eye smears—cultures	—	341	—	—	—
Urine cultures	—	1,135	—	—	—
Other fluids and exudates	—	3,875	—	—	—
Organisms for identification	—	3,872	—	—	—
Sensitivity testing	—	1,928	—	—	—
Blood cultures	—	5	—	—	—
SANITARY BACTERIOLOGY					
Dairy products	—	—	—	—	25,285
Water, drinking and pools	—	—	—	—	110,111
Water, pollution surveys	—	—	—	—	15,449
Foods (sanitary quality tests)	—	—	—	—	1,000
Food poisoning	—	—	—	—	404
Utensils—swabs	—	—	—	—	2,412
DENTAL CARIES BACTERIOLOGY	—	—	—	—	1,469
PARASITOLOGY					
Intestinal parasites	15,992	—	87,057	1,495	104,544
Hookworm	—	2,936	—	—	—
Ascaris	—	3,998	—	—	—
Enterobius	—	2,792	—	—	—
Trichuria	—	1,561	—	—	—
Other helminths	—	87	—	—	—
E. histolytica	—	71	—	—	—
Nonpathogenic amoeba	—	4,537	—	—	—
Flagellates	—	2,681	—	—	—
Toxoplasmosis	—	—	—	—	372
Malaria	14	—	34	1	49
MYCOLOGY	2,244	—	2,786	17	5,047

TABLE 22 (Continued)

SPECIMENS SUBMITTED TO STATE BOARD OF HEALTH LABORATORIES FOR EXAMINATIONS BY FINDINGS, FLORIDA, 1968

EXAMINATIONS	Number of Specimens				
	Positive Specimens				
	One or More Positive Findings	Positive for Findings Indicated	Negative	Unsat.	Total
CHEMISTRY					
Blood					
Hemoglobin	—	—	—	—	20,883
Glucose	—	—	—	—	34,536
Cholesterol	—	—	—	—	1,069
Other	—	—	—	—	864
Spinal fluid	—	—	—	—	283
Urine	—	—	—	—	216
Water	—	—	—	—	2,848
Toxicology, narcotics, drugs and cosmetics	—	—	—	—	3,639
Radiological chemistry					
Water (ground and precipitation)	—	—	—	—	413
Air	—	—	—	—	1,058
Milk (Sr90, Ce137, I131, etc.)	—	—	—	—	110
Vegetation	—	—	—	—	161
Soil, biota and other	—	—	—	—	232
PKU SCREENING	—	—	—	—	58,942
VIRAL SEROLOGY					
Hemagglutination—inhibition	—	—	—	—	1,698
Neutralizations	—	—	—	—	32
Complement—fixation	—	—	—	—	8,337
VIRAL ISOLATIONS (except rabies)	—	—	—	—	1,639
Rabies (microscopic)	117	—	3,733	102	3,952
Dog	—	3	—	—	—
Cat	—	2	—	—	—
Fox	—	2	—	—	—
Raccoon	—	87	—	—	—
Skunk	—	3	—	—	—
Bat	—	18	—	—	—
Horse	—	1	—	—	—
Bobcat	—	1	—	—	—
Mouse inoculations	—	—	—	—	9
SPECIAL PROJECTS					
Salmonella typing	—	—	—	—	1,803
Community pesticides study	—	—	—	—	6,504
Arthropod-borne virus surveillance	—	—	—	—	3,247
Rubella surveillance	—	—	—	—	741
Maternal and infant care—Headstart	—	—	—	—	12,318
Airborne pollen studies	—	—	—	—	582
Air pollution study	—	—	—	—	753
Coronary disease—screening	—	—	—	—	11,020
Protein electrophoresis	—	—	—	—	2,735
					1,523,275

TABLE 23
VIRAL AND RICKETTSIAL DIAGNOSTIC FINDINGS FOR 1659 PATIENTS EXAMINED BY FLORIDA STATE BOARD OF HEALTH LABORATORIES, 1968

Etiology	Positive	Equivocal*	Total
RESPIRATORY			
Adenovirus	3	55	58
Influenza A	51	164	215
Influenza B	2	65	67
Mycoplasma pneumoniae (Eaton Agent)	18	39	57
Parainfluenza 1 & 3	7	15	22
Respiratory syncytial			0
EXANTHEMS			
Measles (Rubella)	11	72	83
Measles (Rubeola)		1	1
Murine typhus			0
Psittacosis - LGV		28	28
Q Fever			0
Rickettsialpox - Rocky Mountain Spotted Fever		1	1
Vaccinia-variola			0
Varicella-zoster	2	5	7
CENTRAL NERVOUS SYSTEM			
California encephalitis			0
Coxsackie virus types A9,B1,B3	5		5
Eastern encephalitis		1	1
ECHO virus types 1,5,9,12,31	12		12
Herpes simplex	10	62	72
Lymphocytic choriomeningitis	2		2
Mumps	19	52	71
Polio virus	1	4	5
St. Louis encephalitis		8	8
Venezuelan encephalitis	1		1
Western encephalitis			0
TOTALS	144	572	716

*In the case of a single serum submitted, or in the absence of a rise or fall in the antibody titers of paired sera, no interpretation possible as to etiology.

TABLE 24
LABORATORIES REGISTERED AND PERSONNEL LICENSED UNDER THE FLORIDA CLINICAL LABORATORY LAW, CHAPTER 483, F.S., 1968

Laboratories Registered			Personnel Licensed		
Type	Number	Per Cent	Category	Number	Per Cent
Independent	234	50	Director	223	6
Hospital	194	42	Supervisor	845	23
Blood Bank	20	4	Technologist	1733	48
Plasmaphoresis	8	2	Technician	825	23
Public Health	11	2			
TOTAL	467	100	TOTAL	3626	100

BUREAU OF LOCAL HEALTH SERVICES

MALCOLM J. FORD, M.D., M.P.H.
Director

The bureau is responsible for the Board's supervision of the County Health Units as provided in Florida Statutes, Chapter 154 (County Public Health Units). Its direct functions are in the field of budgeting, records, program coordination and general consultation. It shares responsibility for fiscal, supply, personnel, and program planning operations of the local health units with the pertinent bureaus. It also provides specific consultation in nutrition, sanitation, health mobilization and home health services through its appropriate division and program units.

The consolidation of city and county governments to form the Consolidated City of Jacksonville October 1, 1968 included the respective health departments. At the request of the new City Government a modified implementation of Florida Statutes 154 in the new jurisdiction was negotiated in the form of a contract. This will be reviewed at the anniversary. A formalized State Board of Health (SBH) - local health department (CHD) relationship now exists for the citizens of the "old" City for the first time, the only remaining segment of Florida citizens not to attain this relationship.

Recruitment of county health directors has been quite successful this year. At year's end all positions were filled. Of these 41 physicians, nine were diplomates of the American Board of Preventive Medicine, one possessed the degree of Dr.P.H. and 18 the M.P.H. degree. Their average age was 55. During the periods when two of the positions were not filled a bureau staff physician became the temporary director, thereby maintaining at least the usual CHD services.

During the year six physicians were in public health residencies in the state, four in CHD's (Dade, Palm Beach) and two in residency at the SBH in Jacksonville and the Clay-Bradford-Union County Health Unit.

Consultation in clerical and records procedures was continued, including Medicare procedures. Review and collection of the approximately 265 individual records used in CHD's into a records manual was accomplished. The system for supplying these records to CHD's was reviewed with the aim of improving procedures.

Individual county health units published detailed reports of their many and varied services. The following are only highlights for the year listed by the staffs.

ALACHUA —The year 1968 in the Alachua CHD was one of change. There was a considerable "turn-over" of staff in all divisions. A new director of Health and Related Services was appointed in October to administer the Alachua County's Welfare Department, County Outpatient Clinics, CHD, and the Mental Health Division to coordinate the services provided by these agencies and to render better health and welfare service. . .The six child-spacing clinics in the adult health clinics were added in the rural areas. The purpose of these clinics is to give better medical care to women of all ages; to include physical examinations and Pap smears. These clinics will be staffed by doctors from the Gynecology-Obstetrics Department of the Shands Teaching Hospital. The five pediatric clinics which provide medical services to the indigent child will continue to be maintained. . .A community survey to determine the health needs and practices of the people of Alachua County was conducted in May 1968 by the Public Health Nursing Division. Eleven hundred families, selected by random sample through the Statistical Division of the National Communicable Disease Center (NCDC) were interviewed. Data collected from the community survey will be used to design a project in the low socio-economic areas to identify "local opinion molders" and use these leaders to work with the people in the areas to improve sanitation of their environment. . .The CHD continued to act as a training ground to provide experience for students from the University of Florida in psychology, health education, physical therapy and public health nursing. . . The public health nursing staff was involved in various community projects, such as the "Operation Concern" project instigated by the Governor's Office, three night clinics, sponsored by the County Commissioners and manned by the nursing staff and volunteers from the Women of Equal Rights organization to provide physical examinations for medically indigent children who were missed in the Headstart Program. . .The Division of Environmental Health undertook several needed programs, such as, a surveillance and testing of water surfaces (the ground water surveillance program is in its fourth year); a surveillance program of all potential air pollution sources. . .The 150 T/D Compost Plant reached full operation. . .Requests for mental health services were nearly double those of the previous year. . .In order to meet this need in the community a project has been approved for a Community Health Center.

BAKER— The newest program is the Heart Screening Clinic which was started in June 1968. There are four all-day clinics a month with an average of 14 patients a week, with a total of 286 being screened this year. . .The home health aide is kept busy and the patients are receiving great benefits from having her in the county . . .A family planning clinic is held one day a month. This program is expanding. . .Low-income prenatal patients are seen by a local private physician, who gives his time for a monthly clinic at this office. They are delivered by one of our three midwives or referred to the MIC clinic in Starke, if they are high-risk. . .The sanitarian completed two eight-hour foodhandlers training programs involving 134 persons with 112 of these completing the two programs.

BAY – Major emphasis in the Environmental Sanitation Program during 1968 was placed on a re-evaluation of all current programs, a rewriting and up dating of all sanitation practices, standardization of inspection programs, and a thorough analysis of each individual program in an attempt to pinpoint the critical areas or areas presenting continuing problems. The resulting savings in time and effort from this review enabled the department to shift additional sanitarians into the beach area this past summer, to concentrate on the problems presented by caring for approximately one million out of state visitors in a four month tourist season. . .Among long-range sanitation goals which were achieved, or are nearing completion are: (1) Start of construction on a sanitary sewage system to serve the Panama City Beaches area, with an expected completion date of December, 1969; (2) Start of construction to replace the inadequate, overloaded sewage treatment plant serving the western area of Panama City, with removal of the major source of bay pollution now in sight; (3) expansion of the county-wide water system to Tyndall AFB, Beaches area and several small communities in eastern Bay County; (4) incorporation of Parker and of Callaway communities, the last major unincorporated areas in Bay County; (5) passage of legislation needed to protect the watershed area of the county water system and its reservoir at Deer Point Lake. . .Public health nursing programs of note included (1) a Venereal Disease Demonstration project in our high schools and junior highs which led to incorporation of VD education into regular curriculum of these schools; (2) increased activity in family planning program, in cooperation with the Department of Public Welfare; (3) a continued nursing effort in the Vaccination Assistance Project and in our Well-Baby Conferences, which have contributed to the lowest infant mortality rates ever recorded in this area; (4) participation in the statewide summer Teacher Orientation Program, which provided an opportunity for four teachers to become thoroughly familiar with CHD services in their community, and how to utilize them; and (5) a continuing close association with community mental health program which has filled a need in post-hospital patient care and in training for members of our nursing staff. Plans have been completed for a program dealing with mounting illegitimacy rates. When operational, it will combine efforts of public health staff, welfare department, guidance clinic, and educational staff personnel, to provide advice, counseling, family planning services, welfare guidance and assistance, and educational and training opportunities.

BRADFORD— Due to the increase in nursing care of the sick at home and the heavy Maternal and Infant Care (MIC) Program, another nurse was employed in June. This brought the nursing staff up to a nursing director, three full-time staff nurses and one part-time. Each nurse has a district and works in a generalized program. . .Unduplicated census of care of sick at home were 140 with 118 over 65 years of age, the majority being referred by local physicians. A total of 2125 nursing visits was made. . .Five home health aides, working under contract with the Public Health Nursing Advisory Council, served 42 Medicare patients with a total of 1945 visits, under the supervision of the public health nurses and on physicians orders. . . An inservice education program is held at Starke monthly for the home health aides from Baker, Bradford, Clay and Union Counties. The director and nursing director attended the Planned Parenthood Seminar in Tallahassee and the nursing director and a staff nurse attended the school health workshop there. . . We cooperated with the OEO and local physicians in examination of the Headstart children. . .Bradford County was selected by Dr. Ruth Freeman, professor of Public Health Nursing, Johns Hopkins School of Public Health, for a teaching case in public health nursing in a small rural county. For the third consecutive year, the nursing council was awarded a trophy for the County Fair exhibit showing the services of the CHD. . .The MIC Program continues to operate with a heavy case load. The following admissions during the year were maternity 150, infants 148 and family planning 255. . .Cooperated with teachers in the schools by giving lectures on various health services using films, slides and other visual aides. Programs by CHD personnel were given at PTA meetings and during teachers pre-planning period. . .Vision screening was done by trained volunteers on children in second, fourth, sixth and eighth grades with follow-up of visual defects by public health nurses. . .The continuous growth of chicken farms poses severe problems in fly control and disposal of chicken manure. In 1968 the chicken farms doubled in number. The Sanitation Department is working with these growers in a spraying program for fly breeding and also, holding tanks for manure problems. . .The Bradford CHD maintains and supervises five landfills within the county. . . Starke added four miles of sewer lines to unsewered areas in 1968 to connect with our half million dollar sewage disposal plant. Two flights of Marsh bugs in the summer of 1968 created many complaints. Through the CHD, the SBH Research Center in Winter Haven is now working on this situation.

BREVARD— A dental program for indigent children was initiated in the Melbourne Health Department with the employment of a dentist and dental assistant . . .The clinics in Titusville and Rockledge will commence when funds are available for necessary equipment. A health educator and nutritionist were acquired and are giving many needed services to the county as well as coordinating programs within the health department. . .A home health aide service program has been initiated with three home health aides. They received their 60-hour training course and have made 473 home visits to 50 patients since September 30. . . Tuberculosis detection has been very active as a result of a mass survey the latter part of 1967. A total of 24,937 x-rays were made and follow-up has been completed on 116 suspects. . .The family planning services continue to increase with 538 new patients admitted this year. . . A gas chromatograph, the analytical equipment necessary for pesticide, herbicide and other complex chemical determination, has been obtained for our laboratory through a cooperative joint funding effort of Melbourne, Eau

Gallie and the county. . .Increased surveillance of milk and milk products by an additional 500 laboratory samples has created a marked improvement in the quality of these products. . .A food service employees training course was established with instructional staff furnished by Brevard Junior College. The course is to be a permanent program and is conducted countywide. . . Further reduction of septic tank installations occurred in 1968. The CHD was involved in a court case brought by an individual who objected to signing the County's "Temporary Septic Tank Agreement" requiring connection to sanitary sewers when they become available. The courts ruled in favor of the CHD and upheld the use of the agreement forms. The county attorney represented the CHD in the case. . .A number of cases of animal rabies in raccoons during 1968 required the quarantine of four areas in the county. Two of these animals had bitten people. . . Procedures for enforcement of the county's special regulations requiring clearing of hazardous vacant lots in subdivisions in unincorporated areas were established. . .A survey of all schools (public and private) in the county was completed. Only a few deficiencies were found. . .The South Beaches Sewerage Project, the first utilities project undertaken by the county, got underway. Two privately owned systems were acquired and are now being operated and maintained by the county. Plans for major sewer construction will commence in 1969. Eau Gallie and Melbourne received awards for the best operated sewage treatment plants in their class in Florida. Negotiations between the county and seven privately owned sewerage utilities on Merritt Island for public acquisition and consolidation are underway. Cocoa concluded negotiations for acquisition and began operation of a small privately owned, poorly operated sewerage utility. The small, inefficient sewage treatment plant will soon be eliminated and sewage will be pumped to the city's central plant for treatment.

BROWARD– The county moved into first place in the United States in construction and growth during 1968, over $501,673,704 of construction in one year, a tremendous workload in the field of environmental sanitation. . . One hundred fifty-eight new public swimming pools, all plans processed by the health department, total permitted pools now 1256. . . To properly dispose of wastes, Hollywood awarded construction contracts for an $8,000,000 program, including ocean outfall. A large problem of waste disposal at Pembroke Pines was solved by a tie-up with Hollywood. Wilton Manors, Oakland Park, and Lauderdale-by-the-Sea are approaching or have achieved 100 percent sewer service. . . The health director and engineer presented status of air and water pollution in Broward County at special legislative hearing on December 20, which resulted in recommendation of the activation of special legislation passed in 1965 to solve the problems, master plan being prepared for the anticipated population of 1,150,000 persons in 1985. . .Special projects were extended: the MIC accommodated 1213 maternity patients and 1210 infants in high-risk category — infant mortality drastically reduced. The Migrant Labor Preschool Program resulted in very complete examinations with follow-up for 420 children. A total of 6121 persons was screened for diabetes, resulting in 137 suspects found. Individuals totaling 6115 were tested for glaucoma — 157 suspects found and referred to physicians. The first case of rabies in 13 years, in a raccoon, necessitated treatment of six persons. . . A $2,000,000 migrant labor housing project, 1600 new units plus a new health center to serve the medical and dental needs of migrants, now under construction. . . The septic tank sludge problem, involving 80,000 septic tanks was partially solved by the mandatory use of two trash disposal sites. There has been extensive expansion of health education, local preparation of tapes, slides, movies, working closely with radio and school system, preparation of voluminous large health posters, and close cooperation with many local agencies, Tuberculosis, Heart, Cancer, Alcohol Commission, in health education. The health director was elected chairman of new Broward County Commission on Alcoholism with its own budget and staff. . . A second mobile x-ray unit ($50,000) approved by county commission. Northwest Health Center expansion approved, funded and drawings in process. The CHD contracted with Board of Public Instruction, Economic Opportunity Coordinating Group and Neighborhood Youth Corps for provision of health services to clients. CHD personnel participated in and contributed to formation of an area-wide Comprehensive Health Planning Advisory Council.

CALHOUN– Planned parenthood has continued to be the major program in Calhoun County. IUD clinics are held monthly. Sixty-one IUD's were inserted during the year. One case of uterine cancer was detected on cervical cytology. . .The CHD participated again in the Headstart Program. A total of 136 physicals was performed. . . This year a home sanitation program re-check was made that was started in one of the schools in 1963 by the county sanitarian, school health coordinator and the 12th grade students. In the five year period septic tank construction, sewer connection and approved water connections more than doubled. This will mean much to the individual families involved but the over-all accomplishments we feel are the public relations view point and the improvement made in the schools health program.

CHARLOTTE — In November bids were opened, contract awarded, and construction started on the main health center in Punta Gorda and the ancillary facility in Englewood. Total construction and equipment cost is over $400,000 . . . The mass measles immunization clinic was held on Sunday, April 7. Five hundred eleven children between the ages of one and twelve were immunized. . . A home health aide has been trained and employed full time in our home health program. . . In cooperation with the Building and Zoning Department, a program was developed to provide the best environmental conditions possible for an ever increasing problem of short term camper and travel trailer parking. A joint effort to standardize requirements with the adjoining county was worked out which has proven quite satisfactory to both the industry and local health authority. . . A vocational training program was established in the local school system for under-achievement students in which the Sanitarian Supervisor played an important role. Lectures on personal hygiene, bacteriology, commercial kitchen housekeeping, and sanitation were conducted, followed by a field trip to pre-arranged food service facilities to observe their operations and sanitation practices.

CITRUS— Immunizations have been taken out of the schools and parents of the children encouraged to bring them to the special immunization clinics established in various communities throughout the county during the summer months. . . Mother and baby care classes were taught and well received in the county high schools. . . Audio screening is being done on all first and fourth grade children and visual testing on all elementary school children in the county. ... The Health Project in Teacher Education was taught during the summer. . . In the sanitation department, six additional sewage plants were installed. One 250,000 GPD sewage plant installed for Crystal River. There were two central water systems placed in operation, one to serve the Homosassa Water District and one to serve Ozello, Inc. area.

CLAY— The population of Clay County continued to show tremendous growth in 1968. Residential construction again reached an all time high. New apartment complexes and subdivisions were greatly expanded. All of this new construction incorporated central sewage collection and treatment with central water supplies. In rural areas not served by central sewage, some 300 septic tank systems were installed. . . A new modern dog pound is under construction, centrally located, and large enough to take care of county needs for the foreseeable future. Almost 500 animals were inoculated when the annual rabies clinics were held last year. . . The number admitted to family planning increased this year with a corresponding decrease in the number of maternity cases admitted to medical services. . . Public health nursing actively participated in planning and coordinating health services in connection with this project, the second year in Clay County. Direct services provided by nursing included consultation to the Headstart staff, immunizations, skin testing, referrals, many home visits to parents, and weekly visits to the schools. A nurse served on the Advisory Committee and CUBB (OEO) Board of Directors. . . Two months orientation given to public health nursing for two beginning nurses from two counties. Also participated in providing training for a physician resident in public health. . . Daily coordination between CHD and Clay Memorial Hospital has helped in referrals and communications between two agencies, resulting in improved service to patients, both home care and maternity. . . Thirteen school health aides were trained in first aid to work full time in the school health room under direction of the public health nurse and with full time pay by the Board of Public Instruction.

COLLIER— Medical clinic services have increased to two days per week in Immokalee, one day per week in Everglades, and one day in Naples. One general night clinic is held each week for migrants in the Immokalee area. All methods of child spacing have been made available each day, Monday through Friday. Approximate migrant population is 22,000 at the peak of the season. . . A total of 222 patients were hospitalized under the Migrant Health Program. The CHD's Migrant Project bus transported 703 patients out of the county for medical services. . . A tumor clinic is being held in Immokalee once each month. . . Two new nursing homes have received licenses this year. These are our first. . . Building permit value up 52 per cent, with 43 per cent increase in the City of Naples and 63 per cent in county area. Governor Kirk, Congressman Paul Rogers and many professional persons on international, national and state level were shown the Migrant Project. Comprehensive migrant labor camp evaluation being conducted. . . There were two positive rabies cases; the first in several years. . . Additional areas of county are now in water management districts. A comprehensive countywide water and sewer study has been initiated by the Board of County Commissioners. Re-surveys of shellfish waters have been completed. Part of former shellfish waters have been permanently closed.

COLUMBIA-HAMILTON-GILCHRIST– In 1968 the tri-county unit participated in the mass tuberculosis testing of all children in the seventh grades. All counties in the unit provided cervical cytology to indigent patients for cancer detection for referral to the North Central Florida MIC Project. These patients were later followed by the local health units for medication. . . All three counties participated in the vaccination assistance program. . . Ambulances and attendants were examined and certified by the tri-county unit. . . Columbia and Hamilton Counties again provided foodhandlers teaching programs through the sanitation department of the CHD. These two counties continue to participate in the mobile dental clinic to the first through sixth grades of the public schools. . . Columbia County has initiated a screening program in heart and stroke. It has had assigned to it the services of a full-time dentist who will use the new facilities in the CHD for the care of children from grades 7-12 of the schools in Columbia County, as well as providing dental care for patients under the MIC Project. The Sanitation Department has been used as a trainee unit for the State Sanitation Department. . . A law governing Day Care Centers was submitted by the CHD, and is in the process of being adopted by Lake City. . . The nursing section of the CHD continues its services under Medicare. . . The Columbia CHD decorated two booths at the County Fair at which all the services available at and through the CHD were demonstrated. . . Hamilton County has broken ground for its new $85,000 CHD building. . . A school nurse has been employed under Title I by the Board of Public Instruction of Hamilton County and placed under the direct supervision of the CHD. . . Gilchrist County has begun construction of the new sewerage system in Trenton. Proposals have been made for construction of a new CHD building. . .Preschool physicals and athletic examinations of indigent patients are done by the CHD. . .Lunchroom workers' and school bus drivers' examinations were performed.

DADE – Several years ago, over half of the indigent mothers received no prenatal care. This year about eight per cent of the indigent pregnant women in Dade County or about 4000 mothers, received comprehensive pre- and postnatal care from the CHD. Family planning services have also increased and this is reflected in a lower birth rate. The infant mortality rate has been substantially reduced and fewer babies are born prematurely. . . Our children and youth project is providing comprehensive health care for over 2000 infants and children in South Dade County. Headstart funds have allowed us to provide health services for an additional 3000 children. Nursing and other health services were provided by CHD personnel at nearly 250 schools. . . With the airlift continuing to bring some 3000 Cuban refugees per month, the provision of health services for this group was one of our largest problems. All new arrivals are screened by our personnel, and the medically indigent refugees who are not resettled elsewhere received most of their outpatient care at our Freedom Tower Health Center. Nearly 500 patients are seen there daily. . . Introduced in 1968, the Continuing Opportunity for Purposeful Education program of the School Board provides for the specialized health and educational needs of pregnant schoolgirls. In the past, pregnancy during the course of one's secondary education usually terminated the school years and often lead to even more tragic events. . . A wide range of medical, dental, nursing and sanitation services are provided for nearly 10,000 migrant farm workers and their families in Dade County. . . Our surveillance system was improved, "sentinel" reporting of diseases by physicians and others was instituted, and we initiated epidemiology training programs for hospital nurses. In tuberculosis control, we began a new research program which may reduce the cost and duration of isoniazid treatment. At our VD clinics, a record number, over 4500 patients were treated. . . Environmental health inspections and other field activities reached more public establishments and residential units than ever before. An intensive training program was conducted for Miami Beach restaurant and hotel kitchen employees prior to the National Republican Convention. North Miami approved fluoridation of its water supply, so about two-thirds of the residents of Dade County are now served by fluoridated water supplies. . . The CHD helped establish the Comprehensive Health Planning Council of South

Florida. Its major goal is to develop a more effective partnership between health providers and the public. CHD personnel have been assigned to Dade County's Model Cities Program, and long-range planning has been developed for that area. An OEO Neighborhood Health Center has also been established in the Model City Program and the CHD has been assisting it. . . The CHD developed a cooperative system of data collection among 12 local hospitals operating coronary care units in Dade County. Feedback from this voluntary program will permit each hospital to evaluate its own activities and research and training needs will be identified.

DESOTO– Through cooperation of the Jaycee's, Junior Woman's Club, and Medical Association, we conducted Measles Sunday with 1338 eligible children receiving vaccine. An X-ray Survey was held at the Arcadia Sunland Adult Center through the cooperation of the Mid-State Tuberculosis and Respiratory Disease Association and 330 individuals were x-rayed. . . During the year, the DeSoto County Commissioners purchased very adequate property with a new modern building to be modified for the CHD. Arcadia put its new water treatment plant into operation late this year. . . The DeSoto County Commission improved the appearance of a local garbage disposal dump and provided a type of landfill operation. . . A local citrus canning plant has re-designed and altered its waste water system in order to discontinue its contribution to the pollution of Peace River. . . A survey of residential garbage storage was completed during which over 1,000 garbage cans were condemned and destroyed in Arcadia.

DIXIE– The CHD cooperated with the Game and Fish Commission in an effort to stop oyster "rustlers" from operations. The sanitation section also has been busy with new housing along the Gulf Coast, which is showing rapid growth. A new Marina complete with rooms and swimming pool is also being built to cater to Gulf vacationers. The sanitation phase of such building has provided an increased work-load for this section. . . The CHD drew up a written agreement on school health which was approved by the school board and spelled out the responsibilities of each agency. This is the first written agreement made on this subject in Dixie County. A vigorous pre-school program was planned for the indigent children of the county, to include physical examinations and immunizations. . . The CHD took part in numerous meetings with county personnel who tried to iron out the details of emergency vehicles service. A solution was achieved after about two months work.

CITY OF JACKSONVILLE (formerly Duval County)– In the nine months prior to consolidation, the Duval County Health Department concentrated on plans to make the merger easier and on maintaining the large gains of last year. . . Intensive efforts by sanitary engineering to upgrade sewage disposal systems in the outlying subdivisions and industrial areas continued with some success (and some failures!). Close surveillance of pre-cooked foods kept under heat lamps in groceries was instituted with good cooperation by stores. Only one nursing home was closed but many beds (extended care type) are now under construction and the remaining old frame homes will soon be phased out. . . A statistical study in depth of the first year of Medicare in extended care facilities was conducted with the Health Planning Council, indicating among other things that our future needs are for custodial or long term beds. Growing pains and painful communication problems in the tuberculosis program will be eased when the city and county registers and services are finally merged. . . Training for ambulance attendants was established in the junior college for emergency ambulance personnel. Inability to fill our dentist vacancy has brought the already limited program almost to a halt. . . In August of 1967, the residents of Duval County approved in a referendum the establishment of a consolidated government which would be one government for the whole county abolishing all independent governments, governmental agencies, authorities, and boards. There were four exceptions to this in that four communities in Duval County did not vote to join the consolidated government. However, terms of the Charter provided that the Health Division would be a general services area division and would serve these communities which are not technically part of the City of Jacksonville but urban service districts lying within the City-County. . . Immediately after the consolidation referendum was passed, liaison was established with the five governmental units that would make up the Health Division on October 1, 1968. These former governments were the City of Jacksonville Health Department, the Duval County Health Unit, the East Duval Mosquito Control District, the Northeast Duval County Mosquito Control District, and the Duval Air Improvement Authority. Plans were initiated and they are only now reaching some semblance of fruition. The Vital Statistics activity, which already encompassed the entire County, was the only one that was not affected by the consolidation merger. . . Some housing problems have been resolved in that the health card clinics operated separately by the old CHD are now merged in newly renovated quarters, and the Venereal Disease Clinic is also in newly renovated quarters in one of the buildings in the CHD complex. . . Plans are completed for extension of mosquito control services for all of the former Duval County. At present, only about 239 square miles of the 840 square miles of the new City have any active type of mosquito control.

ESCAMBIA– Tuberculosis skin test program continues to expand. A total of 33,288 heaf type TB skin tests was given. An exhibit on TB was displayed at the Pensacola Interstate Fair. The mobile X-ray units took 14,039 X-rays with no active cases being found. There were 59 new active cases of TB - up nine from 1967. . . VD education is now being taught in the junior and senior high school curriculum after state and local endorsements were obtained and a workshop held for some 150 teachers. . . Dental services continue to soar over past years with 2220 fillings and 715 extractions over last year's 1516 fillings and 664 extractions. Strict enforcement of missed appointments made a further improvement in patient services. . . A total of 120 relatives of diabetic clinic patients was tested during the November campaign and two new cases were found. . . Immunization studies were done to show areas of need. For instance, a high socio-economic area school showed 99.1 per cent immunizations, while a rural low socio-economic school showed 68.1 per cent. Services were carried to some of the rural areas. Measles vaccination up approximately 1000 over last year's 3579. . . In the well-baby clinic studies are being done on hemoglobin levels to prove the value of iron fortification of milk. . . The public demand for more Comprehensive Home Health Care necessitated the addition of a male licensed practical nurse and two home health aides to our staff. . . There were 58 intentional poisoning reports in the 16-21 age group, more than double the number for 1967. . . The highlights of the Sanitation Division for 1968 were the development of three water systems, serving approximately 3000 persons; the completion of Pensacola's nine million gallons sewage treatment plant, which is the most modern in Northwest Florida; and the extension of Pensacola's sewer laterals to serve numerous areas in the metropolitan area of Pensacola. The Division prepared an inventory of public water and sewerage systems, and the Board of County Commissioners have indicated a desire to give a franchise to Pensacola for the service of water and sewerage to the metropolitan area. The Food Handler's School was reorganized and routine classes are now being held. . . The Board of County Commissioners placed the Animal Control Shelter under the CHD and provided additional funds for its operation.

FLAGLER– The TB skin testing program for school continues to expand. All kindergarten, first grade and new students being tested. Parents trained by SBH personnel carried out the vision screening program in the schools. PKU tests were done on all newborn infants with negative results. PAP smears and IUD's have been added to Planned Parenthood Program. Home health services program included a total of 1056 visits. . . The sanitarian, working only half time in Flagler County, had increased requests for advice and assistance from farmers, cattlemen, land developers (including developers of a large amusement park under construction near a proposed new interchange off Highway I-95), trailer park operators and others on problems connected with water and sewage and solid waste disposal. Continued work done on providing for a central water system for the residents of the 14 miles on the coast between Flagler Beach and Marineland. After many meetings and conferences with Bunnell officials the installation of a long needed central sewage system and needed improvements to the existing water system was finally approved with construction to begin soon. A complete survey was made of solid waste disposal and some improvements have already resulted from recommendations made.

FRANKLIN – A total of 154 students was given physical examinations for the schools. The nurse worked closely with the schools giving immunizations to about 400 students, and arranging referrals for further vision and hearing tests, as well as referrals to Vocational Rehabilitation, Welfare, and Crippled Children's Commission. The vision testing follow-up program included examination by a specialist and purchase of glasses by the Lion's Club and through a special school program. . . TB testing of 200 students in the first and seventh grades completed. Special vision, TB testing and immunization program for 60 children carried on for Headstart. Twenty-five preschool children were given physical examinations, including immunizations. Routine immunizations for about 200 other preschool children completed. Prenatal and postnatal checkups made on 17 cases delivered by midwives, with PKU tests made on the babies. . . The number of patients receiving mental health and TB chemotherapy increased during year. . . Family planning program tripled over previous year. . . Cervical cytology program begun with 19 tests made. . . A total of 483 foodhandlers was given chest x-rays under special program arranged with the Division of Tuberculosis Control. . . Seven sanitary landfills operated in county. . . Apalachicola water system completely renovated.

GADSDEN– An organizational chart was developed during the year. A standard operating procedure for administration was also developed. . . A sanitarian was sent to Atlanta for a special course in rodent control. . . The director has been addressing various civic and service clubs on various phases of public health. He has been explaining the function of the CHD, since there is considerable misinformation as to just what the CHD does. . . The director conducts five general public health clinics each week. He provided some 722 physical examinations and examinations for athletics, driver training, and ROTC, as well as about 200 first graders examinations. . . All women in the Planned Parenthood Program using pills were checked for hypertension and a blood sugar determination was taken every six months. This resulted in discovering a few cases of diabetes. . . A survey for syphilis was conducted by the State Regional VD Control Center in Gadsden County during the month of November 1968. . . The Sanitation Section of the CHD has been advising on rodent control, has been working on the improvement of privies and attempting to get the tenants in rural areas to improve their surroundings by policing and cleaning their immediate area. The Insect and Mosquito Control Program has been working very well. . . The home economist worked with out-reach workers to teach those who did not know how to prepare commodity foods, how to prepare meals on whatever type of stove was available. This was an OEO program worked through the CHD. . . During 1968 the Gadsden County Registrar was given the authority to issue certified copies of death and birth certificates.

GLADES– Special clinics were conducted for mass immunization against measles. Glaucoma screening program was conducted at the Brighton Reservation for the Seminole Indians. An outbreak of TB in a Glades County Migrant Camp occurred in December hospitalizing four active cases within a week. The original, far advanced, case was discovered by routine PPD test administered in a general clinic in Moore Haven. The other three cases were contacts discovered in follow-up. . . A new public water supply was placed in service in Lake Port. . . The public park on Fisheating Creek has been redeveloped with sewage disposal plant and public water supply. . . A successful rabies vaccination clinic was held in cooperation with Moore Haven. . . A training course for foodhandlers was conducted in cooperation with the Glades County school system.

GULF– The public health nurses carried out a continuous visual screening program in conjunction with the Lion's Club for students during the school term. From the more than 800 visual tests 67 students were referred to a local optometrist for glasses. The health director examined 176 indigent pupils and/or preschoolers. The nurses plan with teachers and guidance counselors regarding emotional and mental handicapped students; 36 of these children were seen by psychiatric workers at the mental health clinic that is held each month at the Port St. Joe unit. Records of all services received in the CHD by students are sent to the schools each week. A statistical report was compiled on the immunization standings of all first grade pupils at the request of the Board of Public Instruction. We had an expanded immunization program, completed series increased this year, the measles vaccine was well received. Most infants and preschoolers were referred by their private physicians for immunizations. With the advent of Mintezol, the local physicians also referred the youngsters for parasite treatments. . . Liaison has been established with the Division of Mental Retardation by the appointment of a CHD employee (by the Board of County Commissioners) to the steering committee for the Sunland Recreational Park on St. Joseph's Bay in Gulf County. This complex is to be for the mentally handicapped from Miami to Marianna. . . Much time and effort was expended in assisting 26 former state hospital patients, the CHD orders and dispenses prescribed medications for these people. A local pharmacist fills the prescriptions. . . Assistance was given in the further development of St. Joseph's State Park as the existing facilities will double the present accommodations.

HARDEE– The CHD in cooperation with the local physicians and Jaycees sponsored a "Measles Sunday". A total of 635 children, ages one through twelve, received immunizations. . . A local school system project made available much needed assistance for children to obtain necessary medical services. Of the 225 health defects corrected, 47 children received vision exams and prescriptive lenses and another 27 were also examined and treated for other eye problems; complete dental care was given to 76 children while 17 received emergency or partial dental care. Complete physical examinations were performed on 60 children resulting in six tonsillectomies, six were hospitalized for major or minor surgical procedures and 10 others received prescriptive medications. . . In addition, many other health defects were corrected by funds obtained from the local clubs and organizations and also through referral to other health related agencies. . . The County Commissioners have appointed a firm to investigate and plan a zoning law for the rural areas of the county. . . Spring of 1968 saw the completion of Zolfo Springs' water plant and system which serves 500 homes.

HENDRY– "Measles Sunday" was successful with a high percentage of susceptibles receiving immunizations. . . The annual diabetes screening clinic was conducted for testing of relatives. . . Tragedy struck in early November when a labor camp was hit by a tornado, clinic building was completely demolished, records and supplies strewn over entire camp area, two killed and three hospitalized. . . A new sewage disposal plant was built in LaBelle, which will reduce the pollution of the Caloosahatchee River. . . A new dog pound has just been completed in LaBelle. . . Cooperating with the Hendry Building and Zoning Department, administrative practices have been adopted which will assure adequate sanitary facilities for all new buildings constructed in Hendry County. . . All septic tank installers operating within the county have been licensed and bonded. A number of substandard houses have been condemned and removed. . . Public water systems in each city have been extended to serve a greater number of citizens. . . One confirmed case of tularemia was investigated and the source of infection found to be a wild rabbit. . . Two positive cases of rabies were found in wildlife.

HERNANDO– We were without a permanent director from March through November. With assistance from the SBH we were able to maintain an adequate program. The new director came the first of December. . . A venereal disease course was taught in the high schools, with state consultants assisting. Many new problems were resolved. . . A countywide clean-up program, with 40 Neighborhood Youth Corps students participating, was conducted and many areas of the county were improved appreciably. . . A Red Cross First Aid Course was offered to city and county police and all ambulance attendants, sponsored by the CHD. As a result ambulances from two funeral homes were certified and adequate coverage for the area is assured. . . The Weekiwachee River and Hernando Beach areas installed approved water systems. . . Ground work has been done on an approved water and sewer district that will encompass the entire western portion of the county.

HIGHLANDS– Well-child clinics, started in Sebring, Avon Park and Lake Placid, were held once a month, staffed by a physician, one nurse and a clerk. We had some difficulty with the prenatal and family planning clinic. Our County Commissioners were taking care of the medically indigent delivery fees until the obstetricians decided to raise their delivery fee. A ruling or decision was made by the commissioners that they would no longer pay for any delivery (unless specific cases were presented to them for approval). We have found that these patients have managed to make arrangements for their delivery by a doctor and the clinic is running smoothly again. . . TB skin testing was done in all the schools, grades one and nine. . . Regional consultant services to TB Clinic ended in May and we secured the services of a local physician. . . Sewage disposal plant installations increased five times; many camping and travel trailer parks and three large mobile home parks permitted. Plans approved for water and sewage systems for a paper box factory and citrus packing plant in the south end of the county. A 90-bed nursing home being completed north of Avon Park. . . After more than 20 years of urging by the CHD, the County Commissioners have named a planning and zoning board and hired a planner. With our aid he has been formulating codes, rules and regulations for building, plumbing and electrical installations and will, in the near future, issue permits and licenses to contractors. . . Sewer lines were extended in Sebring and Avon Park. This was possible because each town has constructed a new disposal plant within the last two years. Water plants have been revamped and line extensions made in Sebring, Avon Park and Lake Placid to serve new customers. . . In Sebring plans were approved and work started on an addition to the Cottrell Nursing Home. Buildings connected to the city sewer included a 12-story apartment house and several new stores. Two trailerette rallies were held in and around Sebring and a group of people started a "How to Improve our Community" monthly session. . . Avon Park has started work on 120 urban renewal units. . . Lake Placid will soon have a new elementary school connected to a sewage treatment plant. This is the first school in the county using this type of treatment. Others have been connected to city sewers or septic tanks.

HILLSBOROUGH – Worked with the Epidemiology Research Laboratory, the SBH, and the National Communicable Disease Center (NCDC), on a viral immunity study of Hillsborough County population group. . . Worked with the University of Florida and the Florida State Board of Health to assess the efficacy of an inhalation influenza vaccine. . . Held a mass measles immunization campaign, countywide, and administered vaccine to 26,696 children. . . Environmental Engineering division used its federal grant to work with the county commission in an attempt to improve pollution control. The effort included a large publicity effort part of which was a balloon release in Tampa to dramatize the importance of air movement in dispersing air pollutants. . . A new branch building in Plant City was nearly completed. The new main building of the Hillsborough CHD was dedicated in 1968. . . Beginning efforts were made with neighboring county health units in wide area planning. Several meetings were held regarding this during the year. . . Winter vomiting disease was found again in 1968 in the county. . . Reyes disease, affecting the nervous system and liver in children, was found again in the county. . . Gonorrhea continued increasing in incidence while syphilis declined. . . Efforts were increased to try to bring more planned parenthood services to welfare recipients. . . The tabulation of the daily activities of our personnel was computerized. The coding requirements, established at the state level, were not changed. A recapitulation of activities reported by individual employees is now possible. A recapitulation by geographic area is also possible.

INDIAN RIVER – This county is experiencing a period of very rapid growth. The increase in building and developing has been reflected in the demand for more services in all our health

programs. . . A newly adopted countywide building code has resulted in much better control of sanitary facilities and has required the addition of another sanitarian. . . With the additional help we have been able to improve various other sanitation programs as well. More and better inspections are now possible in such areas as the crabmeat and oyster handling plants, trailer parks, all the new restaurants, motels and swimming pools and the newly developed county recreational areas and parks. . . Another area in which much planning was involved was in helping to develop a good public water supply for the low socio-economic area of Gifford. . . Home nursing and supervision of the home health aids program continued its mushroom growth and nearly doubled in the past year. . . TB follow-up and the prophylactic program have also consumed more time as the program continues to develop. This year again we reversed the national and state trend and hospitalized more new cases than last year. A countywide tuberculin survey was held in the schools and was well handled by the combined state and local team. . . Coordination of the CHD activities with those of the federal programs such as "head start" and other OEO projects took much time and effort but helped spread the work load. The addition of a school health coordinator who was a public health nurse in this county has made possible improvements in vision screening, the health and family life programs and a larger base for a hearing screening program. . . Gonorrhea continues to increase and this program consumes a lot of professional time and effort not only in clinics but also in obtaining contacts. . . The volunteer ambulance service has continued to work well. . .More than 100 persons have been trained and certified as ambulance attendants and much new equipment has been added to the ambulance fleet.

JACKSON – During the fiscal year 1967-68, 536 home visits were made to home health nursing patients with no extra personnel, in comparison to 64 home visits during the fiscal year 1966-67. . . The tuberculin skin testing program in the schools this year was extended to cover not only first graders, but also kindergarten and sixth graders. . . Dental inspections made in the schools numbered 3530; 69 students required treatment; 286, completed treatment; and 758 pupils were admitted to clinic for treatment. . . Tooth brushes were given out to patients who did not have them, with instructions to both parent and child. Some mentally handicapped patients who could not receive dental treatment elsewhere have been serviced. . . Considerable effort by sanitarians in discouraging installations of septic tanks for two new trailer parks resulted in one being connected to the Graceville sewer system by installation of a new sewage lift station; and the pending installation of a "package" sewage treatment plant for a trailer camper park under construction on the Blue Springs or Merritt's Mill Pond tributary on the U.S. 90 Highway east of Marianna. . . All animal heads available, such as foxes, cows, hogs, etc., were sent to laboratory as part of rabies epizootic study; all laboratory reports negative, a contrast to the near epizootic flare-up of rabies in the gray fox population of the northeast section of the county in the year 1967. . . An increase in 1968 over past years in the installations of septic tanks and private wells.

JEFFERSON– Out-shining all other aspects of public health progress in Jefferson County for 1968 is the new $130,000 Jefferson County Public Health Center. Financed jointly by the Jefferson Board of County Commissioners and federal Hill-Burton funds, the Center was built on a lot donated by a private health service agency, Healthyways, Incorporated. . . Much emphasis was placed on the Planned Parenthood Program with an increase of 403 patients over first year's admissions. Preschool examinations as well as periodic physicals at certain school levels were stressed with the CHD performing most of these. Two tuberculin testing programs were successfully conducted. A total of 132 infants was tested for PKU.

LAFAYETTE– Early in 1968 the Lafayette CHD moved into its new building. Built at a cost of $80,000, the new facility provides four times the space of the old building. The new facility has resulted in a noticeable increase in patient load at all of the clinics . . . The school health agreement was re-written and a pre-school program for indigent children was planned and carried out. . . Lafayette County is a small (population 2900) county with no resident physician. The really big news in this county began when representatives of the University of Florida's Medical School approached the CHD about starting a clinic within the CHD, but staffed by senior residents and senior medical students. The School of Public Health Nursing was also approached and wanted to put public health nursing students in the clinic. The purposes of such a clinic were: to expose medical students and nursing students to the practice of medicine in a rural area; to expose said students to public health; and to study the medical needs of a rural community. After many meetings with local people as well as with top officials at the SBH and the University of Florida, the program was approved. Some few weeks were spent working out details, with the clinic scheduled to begin operations early in 1969. This will be a comprehensive program, offering care to all Lafayette County residents. It has the approval of area physicians and is eagerly anticipated by Lafayette County citizens.

LAKE– The Leesburg and Clermont Auxiliary Unit buildings are already completed. The third auxiliary building for the Eustis-Umatilla area, as now planned, will complete the long range building plan of the CHD. . . Rabies remains a continuing problem in our wild animal population with raccoons leading the list. A reservoir in the Ocala National Forest will apparently be with us indefinitely. No rabies found in cats and dogs during the year. Our rabies control officer captured many animals during the year. These animals were either vaccinated or destroyed. Monthly animal vaccination clinics are held throughout the county. . . Work in planned parenthood clinics is progressively increasing. In 1960, we had 1460 births and even though Lake County has experienced a population explosion only 909 births were registered during 1968, a difference of 551 persons. The census of 1960 showed a net gain of births over deaths of 839 persons while 1968 showed a net loss of 73 persons. . ."Project Responsibility" has been active during the year. The committee is composed of 49 percent of its members from the Lake County Medical Society and 51 percent of the community lay leaders.

LEE – The year was a very active one for the CHD. During this year, we were moved out of the court house and into a remodeled old garage building, which gives us twice as much room; this additional space was seriously needed and was immediately well utilized. . . Also, during this year we survived a Civil Defense Alert Exercise and proved to the local officials that the CHD was ready at all times. . . In March we did a countywide measles immunization program with the assistance and cooperation of the Lee-Hendry County Medical Society. At this time we did over 5000 immunizations. During the County Fair the Lee CHD did diabetic screening and found a surprising number of unknown diabetics, which more than justified the efforts. . . During this year, we came under the State Immunization Program. . . The dental preceptor program has gone over very well, and we have seen and cared for a great many medically indigent school children. We have also had the migrant dental clinic, on a weekly basis, that has been manned by local practicing dentists. These clinics are night clinics and are very heavily used. The money spent on this program is more than repaid by the number of dental corrections that have been made. These local practicing dentists can be very proud of their contribution to the dental health of these less fortunate individuals. . . The CHD has been one of the primary forces in developing Comprehensive Health Planning in this area. . . Family planning clinics, two in number, are held at night and are very heavily patronized. They are manned by local practicing physicians. . . The nursing director is the executive director of the Public Health Nursing Advisory Council for Medicare in Lee County. Our work load on Medicare nursing continues to increase and we have had to add additional nursing staff.

LEON– The county has experienced unusually rapid growth this year, reflected by the increased number of establishments serving the public. Food establishments alone increased by 19 per cent and public swimming pools by 36 per cent. A new 2½ million gallon per day sewage disposal plant was put into operation and approximately 25 miles of new sewage lines were installed giving Tallahassee a total of 385 miles of sewer. However, it was still necessary to install 410 septic tanks. The Leon County School System put into operation a Central Food Service Kitchen to serve 50 per cent of the county schools this year with the remaining 50 per cent to be included later. The Central Kitchen is now serving 4200 - 4400 meals a day which is approximately 42 per cent of the possible total number that will be served in the future. The CHD cooperated in the planning and construction of this large operation. . . The new position was created this year for a full time sanitarian to serve the Florida State University campus which has a population of approximately 16,000 persons. . .The CHD now conducts its own orientation for nursing diploma graduates. A diploma graduate has been employed, oriented, and evaluated to conduct the orientation program. . . The Family Planning Program has increased in growth by 160 per cent. During the year, the home health agency was recertified as being in substantial compliance. The Visiting Nurse Service has had continual growth during the year with a 79 per cent increase, and an additional home health aide was employed. . . The kindergarten group was added to the school tuberculin testing program which brings this selected group to approximately 6000 students of first, second, sixth and kindergarten grades. The Tine test is the screening device used. Immunizations continue on grade levels one and ten.

LEVY– Dr. Stanley A. Hirchfield assumed the duties of director in December following the resignation of Dr. Harold F. Bonifield who had been with the department for 16 years. . . More adequate clinic quarters were secured in the Williston area providing much needed space for teaching and other public health activities. . . An IPPB machine was loaned to the CHD by the Gulf Coast TB and RD Association, enabling us to provide therapy for patients with chronic respiratory ailments. . . A dental screening survey was conducted in the public schools. More than half of the 2085 students screened required treatment. . . Extensive x-ray follow-up was provided following our annual tuberculin skin testing program. A total of 79 positive reactors was placed on chemoprophylaxis, and two new active cases of tuberculosis were hospitalized. . . The Planned Parenthood Program continues to expand with a welcomed increase of 61 new patients. Pap smears were increased by 58, four of which were suspicious, requiring further tests. . . During the year four sanitary landfills were added, bringing the total to 11. . . Attempts were made to educate the public concerning the landfill locations and encourage utilization . . . A pollution survey resulted in the clearing up of some of the areas in the Gulf around Cedar Key.

LIBERTY– During the past year this county voluntarily dropped out of the Home Health Agency Program under Medicare, because no patients were involved during 1967. However, in 1968 a few patients eligible for this care returned from hospitals. They were cared for as directed by physicians without reimbursement. . . The Board of County Commissioners have agreed to ask for an enabling act (in connection with the Gadsden County Board of Commissioners) to allow the collection of fees for this service. It is expected that the authority will be given by the State Legislature in the spring. . . Since this county has no physician, the director holds clinics two days each week in the CHD, where he provides advice to patients as to whether or not a private physician should be seen. The director examined all football players and drivers education students in the county, and conducted all pre-school examinations. He also interviewed all school teachers in the county, and checked on the current status of their physical examinations and problems. Those who had not been examined by their private physicians were advised to do so. One teacher was found to be mentally and physically unfit to teach, and was given a leave of absence from the school system for treatment. All bus drivers physicals were administered by the health director. . . A measles immunization survey was made on children in grades kindergarten through the third grade, and needed immunizations were provided. . . During 1968, school teachers were given orientation and training in the health education field in conjunction with the policy of having teachers learn more about health education. It is expected that during the summer of 1969 a similar program will be conducted.

MADISON– The SBH approved construction plans for the Pine Lake Nursing Home of Greenville. The 48-bed home under construction will be completed and put into operation in the early part of 1969. . . Diphtheria — a preventable disease, came back from the past to disrupt Madison County. Suddenly, four cases of diphtheria occurred in one family in early September after 20 years of silence. Mortality was 50 per cent. The well-planned assistance of the team from the SBH resulted in immunizations reaching 72.9 per cent of the estimated number of susceptibles under 14 years of age. More than 55 per cent of the total population were immunized, not including those given by private physicians.

MANATEE– Small but interesting epidemic involving several schools and a migrant camp, a combined ECHO-9 and Meningococcus outbreak, one death. U. S. Public Health Service (USPHS) and SBH assisted. . . Fifty-two motor vehicle traffic accident fatalities, an all time high! Safety Council active. . . Slight increase in TB and VD cases corresponds to general population increase. . . $5 million hospital expansion, including 25-bed psychiatric unit, construction well ahead of schedule. . . Veteran's Service Office moved from CHD building; nursing acquired space, greatly relieving cramped quarters and providing its director with private office. . . Manasota 88 Project with Sarasota County remains active, initiated bi-county solid wastes feasibility study, approved by both county commissions. . . County delegation met with State Conservation Director on 1967 Bishop's Harbor Pollution incident. . .Pollution Control Code adopted after lengthy study, following three day public hearing. Pollution Control Board appointed. . .Five phosphate companies now own 10 per cent of Manatee County land. . . Port Manatee construction started, completion target December 1969. . .Rise in wildlife rabies investigated by USPH and SBH epidemiological survey team, 32 positive against 15 in 1967, and two in 1966. . .Controversial Oneco landfill closed and Lena Road site opened after two years of study and public hearings, many other proposed sites considered and rejected. . .Rules and regulations for county-owned recreational facilities adopted, include public health factors. . . Lake Manatee made state fish management area. . . Fluoridation study committee appointed by Bradenton. County will await outcome before considering the matter. Opposition indicated by anti-fluoridationists. . .Holmes Beach sewerage project placed into operation. . .Building permits restricted in Bayshore Gardens because of sewage plant ineffectiveness, plans for immediate interim improvement approved by County Commission along with application for federal funds. Plant is to eventually become 6.0 MGD treatment facility for part one of overall county system. . . Bradenton increased its area 50 per cent by annexation in excess of three square miles, purchasing water and sewerage facilities of Cortez Utility Company; in addition has sold bonds and obtained federal grant for improving and expanding its existing water and sewerage systems and treatment plants, will total about $2.3 million. . .Manatee CHD discontinued federal portion of migrant health project, program will continue under local jurisdiction. . . Vector control program being reduced to meet current need. . . Head Start Can-Do Program trained 72 food service personnel. . . One milk processing plant and one dairy closed operations, two obsolete dairies relocated to new modern facilities, both with pollution control devices. One has since failed making considerable problem in adjacent waterway. . .Reconstruction of Bradenton Trailer Park, reportedly world's largest, nearing completion. . . Mobile home park activity at high level, however travel trailer facilities remained neglected. . .Plans approved for 33 sewerage projects, including Bayshore, represents treatment capability of 1.54 MGD.

MARION– The MIC Clinic has continued to operate on a weekly basis with success. A total of 198 patients was registered in the clinic in 1968. An additional family planning clinic was started in the CHD in May. Another maternity and family planning clinic was set up in the community of Dunnellon, to be held twice a month. . . A conference was held early in the year with the coordinator of Federal Programs in the school system. Our time and cost study was used to justify the services of the two nurses employed by the school board under the Elementary and Secondary Education Act of 1965 (PL 89-10). . . A tuberculin skin testing program in the schools was accomplished in cooperation with school personnel, Central Florida TB and RD Association and the SBH. . . At the present time there are 146 patients in the Marion County TB Case Register who are receiving follow-up. A total of 48 patients are currently receiving medication through the CHD. . . Twenty-six patients were diagnosed as having active tuberculosis during the calendar year. . . Ocala adopted an animal control ordinance, prohibiting dogs from running at large . . . Solid waste disposal remains an annoying problem for any city-county complex. Approximately 519,450 cubic yards of solid waste was disposed of during 1968. . . Following a state and national trend, reported cases of early infectious syphilis showed a decrease for the second consecutive year.

MARTIN— The environmental health section is continuously holding conferences with developers, reviewing plans and making site surveys of proposed parks. At the present time it appears as though we may be the mobile home mecca of the Florida east coast. . . Since much of our area is rural, the land is relatively cheap which has interested developers and speculators in the mobile home field. Few community water supplies or sewage disposal systems available; individual utilities must be considered. Thus we see an ever-increasing demand on our staff to maintain surveillance of these projects. . . The CHD has been operating a migrant health project during the year of 1968 with main emphasis in the Indiantown area. Weekly medical and bi-weekly dental clinics are held at night and have been well received.

MONROE— Concerted efforts have been geared toward birth certificate follow-up immunizations to eliminate contagious diseases in early infancy rather than at school age. . . An intensified crash program in VD was completed in susceptible areas with the discovery of several previously unknown cases of syphilis. . . Through the cooperation of Dade-Monroe TB and RD organization and the U.S. Navy personnel, 13 new cases of TB were admitted to service with follow-up by our nursing staff of 109 contacts. All teachers in this county were x-rayed at the request of the superintendent of schools. . . Clinics were held bi-monthly combining maternity (prenatal and postpartum) family planning and Pap smears using volunteer physicians and nurses in support of our own staff. This is proving very successful with increasing numbers in participation. . . A time cost study was instituted to evaluate nurses time spent on programs with special attention given to determine the increased workload on school health. . . Screening programs were conducted in speech, orthopedics and other related school health problems with subsequent referrals and follow-up. (Speech therapy is provided by the Center of Hope.) A volunteer ophthalmologist, in cooperation with the Lion's Club, conducted a comprehensive glaucoma screening program examining 642 patients; of these, 34 were referred for further diagnosis and treatment with 32 completing the tests. There were 12 positive cases found and nine borderline determined and under medication. The investigation and follow-up was accomplished by our nursing staff. . . Through a volunteer service of a group from the Medical Society, clinics were held monthly in pediatrics, orthopedics and pre-and post-surgery, servicing over 300 patients, appointments and follow-up by public health nurses. . . The newly established Keys Guidance Clinic has enhanced the service to our community serving this department through our mental health worker and public health nurses. . . Participation of staff members in workshops and civic, social and fraternal organizations has provided community education along with 29 news articles released by the health officer. . . The director has worked diligently with city and county officials in an attempt to solve the ever increasing problem of garbage and solid waste disposal. . . In compliance with the new Ambulance Certification Law, education of drivers and attendants for four volunteer services in the Middle and Upper Keys was completed this year. The two ambulance services in the Key West area have continued to advance in this field.

NASSAU— The CHD director and the chairman of County Commissioners have been officially appointed as representatives to the Health Planning Council of the Jacksonville Area, Inc. which includes five surrounding counties around Duval County. . . A cardiovascular screening clinic was started in May. . . The county garbage disposal facilities were considerably upgraded this year. Previously, they consisted of open type garbage dumps. By working with the county engineer, these were converted from open type dumps to trench landfills. . . The county sanitation division took on servicing of a field investigation station for the Abatement Branch of the Division of Air Pollution of the USPHS . . . A complete countywide survey was conducted of sewage disposal facilities, of all house trailers located on private lots throughout the county, to check on code violations. In only a few instances were violations found. These have been corrected. . . Plans and specifications were approved for a $1.5 million nursing and convalescent home to accommodate 60 patients, to be located in Fernandina Beach. Construction was started in September.

OKALOOSA– Practically all of the CHD's on-going programs for 1968 increased both in quantity and quality of services offered. . . The school health program was revised to coordinate services of the public health nurses with the 30 school nurses employed by the school board under the State Education Expense Improvement Fund. Immunizations and tuberculin tests were given to both the summer and year round Headstart enrollers. The CHD participated in the Teacher Project in Health Education for the ninth year. . . Architectural plans were completed for a new $150,000 health center in Crestview. . . The growth of Okaloosa County continued at a fast pace in 1968. The number of houses connected to septic tanks decreased from 1967, most of the homes being connected to municipal or county owned sewage systems. Fort Walton Beach completed the upgrading of its sewage treatment plant and extended the outfall line into deep water of Santa Rosa Sound. Crestview put into operation its $600,000 treatment plant in August. All of the larger cities now have sewage treatment plants. Three rural communities completed central water systems that were financed by the Farmers Home Administration. These systems made water available to 95 percent of the residents of these communities. Sunset Village, west of Mary Esther, has almost completed a water system that will supply approximately 200 families.

OKEECHOBEE– A new service offered by the CHD during the year was planned parenthood clinic. Although oral contraceptives were available and other methods of contraception discussed, it was during this year that a clinic for all types of contraception, including IUD was established. . . The dairy industry continues to grow. Okeechobee County is the largest milk producing county in the state. Milk sanitation is a large part of our environmental health program. . . Since the laboratory is now making leucocyte counts on all raw milk, the sanitarian does a great deal of follow-up work to determine the causes of high counts and ways of correcting them. . . Work continues on the development of a barn waste disposal system. It now appears that the volume of waste from our dairies is such that only one other state, California, has ever been confronted with such a problem.

ORANGE– A dove flock has been maintained in Orange County for mosquito-borne encephalitis surveillance. No cases have been found in humans or horses in 1967 or 1968. . . Our 12 dairies located in Orange County are USPHS certified and meet recommended grading standards. . . A required program of using portable toilets on construction sites has been initiated and endorsed with the cooperation of the building officials and the portable toilet industry. . . Our agency is cooperating with USPHS on servicing electronic microwave ovens, for possible hazards. . . In conjunction and cooperation with the Orange Memorial Hospital and the Medical Society we have investigated several areas regarding amoebic encephalitis. . . We are participating in a study for possible new innovation in landfill procedure and methodology, in which individual dumping trucks will have a common depository within their specified community and in turn these larger trucks will carry the materials to a landfill operation. . . Additional dentists and dental assistant have been added to our dental health program, which now covers four grades within the school system. . . Opposite of family planning, we conduct a fertility clinic to give specific information and advice to those parents who want to increase their families. . . All preparations have been made for a school for pregnant school girls sponsored by the Board of Public Instruction, County Ministerial Association and Medical Society. This school will begin in early 1969. . . The program of bacteriological sandwich testing has been in operation for the past year. During this time, tests have been run on all types of sandwiches produced here, plus all types of sandwiches processed elsewhere and sold here.

OSCEOLA– With the Disney Project actually under construction, the resulting boom is reflected in the increased demand for health services. The increase of population has caused our clinics to double in size and new construction all around the area has kept the staff working full time. In spite of the fact that we have had no additional staff or space, the situation has been well handled. . . Our new building has received final approval and we will advertise for bids this month. . . The school system has employed two nurses and we are working out a cooperative program with them. . . A new planning and zoning commission has been most welcome and has helped to make it easier to enforce good sanitation and keep marginal operations from springing up to plague us later. . . Clinical programs have expanded and require increasing amounts of professional time. Maternal care, family planning, Pap smears, supervision and treatment of TB, VD, patients and contacts, and the growing number of school physicals leave little time for other activities.

PALM BEACH– During 1968 the CHD was much involved, with other organizations, in setting up an Areawide Health Planning Council. This was finally achieved with approval of funds for organization. An executive secretary was appointed and the CHD has assisted in providing orientation for him. Involvement in health planning has included an inventory of resources and provisions of data on health needs. . . The MIC Project was able to establish a class within the school system for pregnant students, with health care and some teaching provided by the CHD. . . The migrant project has added new services, particularly in the Lake Okeechobee area. . . A new program on drug abuse has been developed through a committee which has organized an educational program for the schools. . . Over 11,000 visits were made to medical care clinics last year. Care was provided to patients in the County Home, many of whom would otherwise have required general hospital care. Care for over 300 patients in private nursing homes was supervised. Rehabilitation services were expanded. The home care program saw further growth and development. . . A physical therapist was employed to augment the rehabilitation services. . . The Environmental Health Division employed a full-time engineer for water pollution control and a biologist to begin studies of streams and estuaries. Specialized programs in nursing homes, schools, and child care centers are now being administered and inspected by two sanitarians. Several court cases were successfully pursued, primarily as a result of obtaining legal consultation and service through the county attorney's office. The air pollution project now has a mobile air monitoring station which is in the process of being equipped. . . The research project in ocean outfalls continues into its second year with participation by the division staff on the engineering, bacteriology and microbiological aspects of the project.

PASCO– The staff moved into identical new buildings in Dade City and New Port Richey. Nursing staff was augmented by four new positions after contracts were made with School Board and Headstart. . . Agitation by civic groups in coastal Pasco combined with spring flooding resulted in conversions of new subdivisions to community sewerage. The small counties north of Tampa were given a new sanitary engineer by the SBH. Resident pressure is now for better drinking water and garbage controls. . . Mintezol is given on clinical suspicion of hookworm in the schools. Nurse, teacher or aide give the measured dose daily for four days and results have been encouraging. Excellent results from topical treatment of creeping eruption is reported. . . Hepatitis flared in spring and summer in the disadvantaged area north of Dade City. By rate, this county appears to head all counties. Epidemiological investigation showed it person-to-person spread. . . Some 430 of over 500 school employees were tuberculin tested when X-ray facilities failed. Two reactives were found, who are being investigated. The only significant feature of the TB control program was an increase of over 50 percent in prophylactic chemotherapy.

PINELLAS– In December, the CHD in St. Petersburg moved to a new, modern, six story building. . . Radiological Health Division completed a Microwave radiation survey and prepared two comprehensive reports on the subject. These works, along with reports on color television radiation, were used extensively by proponents of Public Law 90-602, which was signed into law in October 1968. . . An air pollution survey of the Stauffer Chemical Plant in Tarpon Springs was conducted to obtain the efficiency of their new air pollution equipment. A water pollution survey was made of effluent waters from existing sewage treatment plants which were believed not to be up to the new standards of the recently established Florida Air and Water Pollution Control Commission. . . Public Health Nursing has expanded its role through the addition of two new clinics — well child and maternity nursing assessment conferences. Both conferences are staffed only by nurses who do a thorough nursing evaluation of the patients. Any deviations found in either conference are referred immediately to the medically oriented clinics. . . The health educator coordinated two Mop-Out Measles projects in cooperation with the Junior Chamber of Commerce and Medical Society, resulting in the immunization of 7101 children. The dental clinic made 2891 restorations, 609 extractions and 9062 schoolroom dental inspections. . . A public health physician has been assigned to take care of medical needs at the new Juvenile Detention Center which has a capacity for 60 dependent and delinquent children. . . Food service sanitation courses were expanded to include 111 management personnel, including managers of large meat markets and delicatessens, chain restaurants and Headstart centers. Use of our card index record system enabled tabulation of food establishment inspection results, making it easier to place priorities of inspections according to need. . . For the tenth consecutive year, the Laboratory Division recorded an increase over the previous year in the number of samples tested and examinations performed. . . A prenatal clinic for teenage pregnant girls, which is associated with continual education in the schools, has been initiated. . . With the aid of the SBH, there has been inaugurated a research project designed to learn more about the frequency of hypoglycemia, particularly in pregnant women, as well as in the new born. . . Multiphasic screening clinics were established using a team of public health nurses and necessary equipment.

POLK– The CHD observed the 25th anniversary of the unit in 1968. . . During the year, chemoprophylaxis against tuberculosis was instituted as a major and continuing program. Recipients were located by three means: 14,648 secondary school children and school staff were screened; case records were searched and former patients who had not received a year of INAH and contacts who were positive reactors were offered medication; selected groups of laborers were screened. A total of 1130 persons was put on medication. . . Aides became a permanent and important part of the nursing staff. Twelve were employed full-time and four half-time. The aides made 2000 home visits to the sick and proved to be capable as clinic assistants and as single purpose home visitors. . . Conception control services showed a 33 percent increase by close follow-up of clients using oral contraceptives and by addition of evening family planning clinics held monthly in five centers. Twenty-one percent of the potential contraceptors in the county are now participating in this program. . . Ten nurses without formal training or experience in public health participated in a 45-hour course in public health nursing theory taught by the nursing director and nursing supervisors. The course was in addition to the regular orientation for new employees. . . Some health education activities were the fifth annual "Youth Conference on Smoking and Health"; several workshops and conferences on drug abuse; an enlarged program of human growth and sex education for junior high school students in cooperation with the local medical association; increased planning and services for health education of migrant citrus workers and their families. . . The rabies control educational program which began in the fall of 1967, continued and appeared to be successful as there was a 57 percent increase in the number of dogs receiving vaccine over a comparable three months period. . . In the food program, foods condemned were reduced by approximately 18,000 pounds from the previous year. Work on the soft ice cream program has increased to include collection of samples of products, both raw and finished, for laboratory analysis. The results of the laboratory analyses reveal a very high bacteria count on some of the finished products, which indicates the problem lies in the mishandling of the products during operation and the lack of proper cleaning and maintainence of the machines. Twenty new food establishments' plans and specifications were reviewed and approved. . . Construction began on one new nursing home which had been issued a conditional license. The last existing home, converted from a private residence, is being changed over to a home for the aged. This leaves one existing home under conditional license, but renovation plans are being reviewed. . . There were 56 public health engineering projects approved for construction with a cost total in excess of $1,430,000. . . Mulberry had plans approved to upgrade its sewage treatment plant from a primary to a secondary plant. This is the last municipal primary plant in the county. Haines City had plans approved to expand and improve its sewage treatment plant at an estimated cost of $350,000. Winter Haven upgraded its water system by the addition of two large elevated water tanks at a cost of $160,000. . . Minute-Maid Corporation placed its new $385,000 industrial waste-treatment plant in operation.

PUTNAM– The TB skin testing program was expanded this year to include sixth grade as well as first. An active case of TB was found in a local school, follow-up included skin testing 772 students and 49 school personnel. Result: two students hospitalized with active disease and 147 positive reactors were X-rayed and placed on prophylactic chemotherapy. . . IUD's are now offered in the Planned Parenthood Clinics as well as the oral contraceptive. Pap smears are done on all patients admitted to family planning service. All nursing personnel participated in the health program of the Headstart Project during the summer. A monthly clinic has been established in East Palatka and plans are being formulated for a weekly evening clinic in the same area for the migrant program. . . The sewage treatment plant at Crescent City has been completed. The new county nursing home under construction at Crescent City is nearing completion. Two new schools were constructed and opened in the county this year. At each school an approved sewage treatment system was installed.

ST. JOHNS– A successful diabetic screening survey was held in cooperation with the St. Johns County Medical Association. . . A new clinical service was started in mid-year for the well child. A local physician is the clinician. . . Dental care is a new service now available to the prenatals. Referrals are made to a local dentist. . . TB skin testing done in one of the high schools found 18 positive tests. Hastings water and sewage-treatment plants installed and operating. . . St. Augustine was ordered by the Pollution Control Commission to remove sewage outfalls from river and upgrade sewage-treatment plants to 90 per cent removal. . . Garbage collection and disposal franchise system was instituted by the County Commission. . . A sanitary survey from house to house was conducted countywide. Recreational camp areas were increased to 1200 sites. . . All installations on I-95 are on complete sewage treatment.

ST. LUCIE – Fort Pierce, which is the center of population of St. Lucie County, has adopted a minimum housing code. This now qualifies it for federal funds to build new housing units and renovate existing structures. Since the area most directly affected is the same area occupied by the migrant population, we have joined forces with the Housing Authority and Building Department in a cooperative program. Our chief goal is to upgrade and improve the environmental health and housing conditions of migrants as well as the local residents of the depressed areas. . . During the year the city has undertaken a water expansion program costing $600,000. This will include new water supply wells, transmission lines and pumps, a 500,000 gallon elevated storage tank and new additions to the present distribution system . . . The CHD laboratory has been invaluable in clearing the new water system bacteriologically for public use. This is especially true in the event we find the water unsatisfactory which necessitates the collection of repeat samples. In this event, we can collect duplicate sets the same week. . . Continued public health nursing emphasis was on our planned parenthood service, providing both day and night clinics for the convenience of those individuals utilizing this service. . . Participation in the Medicare program has increased services so greatly that an additional nurse and clerk have been employed. . . Two additional nurses employed through Title I (PL 89-10) ESEA and EIE Program enabled the CHD to provide increased school health service such as audio-visual screening, health education and case finding to children enrolled in specified schools having a great number of under privileged children. The tuberculin testing program was also expanded to include the fourth grade students in these schools. . . Migrant project staff conducted two night medical clinics and one night dental clinic per week during the migrant season and weekly medical and biweekly dental clinics during the off-season. In-patient hospital service for migrants was implemented in March 1968.

SANTA ROSA– The new addition to the CHD building has been completed and equipment has been ordered at a total cost of $90,000. The old building will be renovated and repainted inside and out. . . The nursing staff has made 3707 visits to medicare patients and 671 to non-medicare patients — a total of 4378 home visits for bedside nursing care . . . The CHD has been certified as provider for Medicare, replacing the County Health Council. . . The CHD participated in the Teacher's Education Project this year. . . A diabetes screening program was conducted by the CHD staff and sponsored by the Pilot Club and local County Medical Society. A total of 674 high-risk cases was tested, four new diabetics found. . . A public health dentist joined our staff. . . Jay has begun a sewage disposal system. Gulf Breeze made additions to its system and Navarre Beach area expanded both water and sewage systems. Avalon Beach, Chumuckla, Point Baker, East Milton and Pace began installation of water systems during the year and large extensions were constructed in Gulf Breeze and

Milton. With completion of these projects 80 per cent of our population will have a public water supply.

SARASOTA— Several local physicians volunteered to serve at the evening clinics for migrant agricultural workers, permitting the assignment of two physicians to each clinic session. Nearly one quarter of our total migrant population visited the clinics and visits were about equally divided between the children and adults . . . After several sewage pipes burst in the old Sarasota High School building contaminating, to a greater or lesser degree, nearly the whole school, typhoid and tetanus immunizations were given at the request of the school authorities to virtually all of the 1300 students attending the school, using the jet spray method. . . Established Sarasota's Well-Child Conference conducted by local pediatricians at our neighborhood poverty program medical clinic. The service has been well received on a bi-weekly basis. Previously, the Manatee County air and water pollution laboratory has processed samples collected by our personnel under a special contractural agreement. Our laboratory has now been completely remodeled and we are able to run all routine samples locally. . . After moving into our remodeled building, we began working with the county officials toward purchase of adjacent property to house our Alcoholic Rehabilitation Clinic. It had been located in a house near the mental health headquarters, several blocks away. Purchase and renovation of the property provided a new "Loan Closet" facility, a new parking lot area, as well as the remodeled bungalow for use of the Alcoholic Rehabilitation staff. Thus, our facilities were expanded and consolidated at one spot. While this was in process, we also undertook a landscaping project to make the CHD more attractive as a place where the public would enjoy a visit rather than simply having no other alternative!. . . With the cooperation of the local Civil Defense agency, we have acquired a base station and mobile radio equipment for most of our environmental health staff. We expect this system to provide quicker response in emergency, as well as reducing mileage previously expended in unnecessary trips to the central office. . . In response to USPHS warnings and many local requests, we embarked on an influenza vaccine effort to protect critical segments of the population. School personnel, health department and fire department personnel made up a large segment of the 1200 persons who were immunized on a cost-of-vaccine basis.

SEMINOLE— Headstart program set up with five day care centers in various locations containing a total of 200 children from low socio-economic areas. Besides instruction, they are receiving complete physicals, dental care, immunizations, follow-up care and referrals. . . Another night clinic has been added to the migrant service in Oviedo making three night clinics a week served by local physicians. This year, hospitalization has been furnished to the migrant families. Every effort is being made to educate these people to use present community resources. . . First heart seminar sponsored by Seminole CHD and Cape Canaveral Heart Association for nurses from Lake, Volusia, Orange and Seminole Counties held at Seminole Memorial Hospital. . . Family planning services are now offered in all four clinics with the addition of IUD's. Our program has shown an eight per cent increase over last year. . . Films on LSD, marijuana and drug abuse have been shown at various times during the year to junior and senior high school students, Seminole Junior College, Parent-Teacher organizations, church groups, etc., with the assistance of the County Medical Society, police and sheriff departments. . . Various members of the staff present films with lectures to the Seminole Junior College health classes. . . During the school year of 1968, a total of 2358 first and second grade children were skin tested for TB. A total of 47 adults and children was tested who were associated with positive reactors; 14 were placed on chemoprophylaxis. . . Included were 33 school personnel tested, with two placed on chemprophylaxis. No active cases of TB were found in this group . . . The Home Nursing Program shows steady growth, home visits have increased from 978 visits in 1967 to 1449 for 1968. . . A total of 286 persons was screened for glaucoma; three cases were found, three other suspects are being followed. . . A total of 219 women received cervical (Pap) smears; one was found to have cancer in situ. . . Seminole County is one of three counties in the state participating in a Health Education Demonstration Project (Pilot Study). Each of these three counties has three master education teachers employed on the elementary, junior high and senior high level to field test a new teaching approach in our schools. . . A new course added this year to Lyman High School's curriculum is health education, running for a full year. Classes are small and no textbook is used. This is a pilot program in Florida, the first state to start a program of this kind. The program presents health education as a unity of man's physical, social and mental well-being. The focus of health education is on the individual, family and community. The conceptual approach presents an opportunity to develop an academic program a little closer to human life and its problems. Studies will be made in many different areas of health, such as, the family, utilization of health information, products and services and mood modifiers. Students have shown a great deal of interest and were surprised at what they were learning. . . Seminole County is presently adopting specific regulations setting forth public health utility standards for all developments and eliminating population densities where public facilities are not available. Comprehensive area planning is being conducted which will ultimately provide area-wide health utility systems throughout the county.

SUMTER– TB among the non-white children and hookworm among the white were disclosed by tuberculin testing and stool examination by public health nurses aided by SBH representatives. Incidence of the latter is declining fast. . . IUD's were chosen by almost all planned parenthood patients. The "coil" was used and little reaction occurred after we learned to give bicillin at the visit. Community acceptance followed trouble-free insertions.

SUWANNEE– The year proved to be a very busy year for the CHD. It began with an influenza epidemic which saw public school absenteeism reach 25 per cent. The CHD was forced to close the public schools for one and one-half weeks. . . Early in the year a new high school was opened and a new elementary school will soon be ready for use. . . Tuberculin and intestinal parasite surveys were conducted. . . The CHD participated actively in the controversial "Hunger" survey issue, both on the local radio and in the local paper. . . A good part of our summer was spent working in the Headstart Program in cooperation with the local OEO group, and doing pre-school work on indigent children. . . Our MIC clinics have experienced an approximate 10 per cent increase in work load during the past year. . . The health department participated actively in the county fair, and gave over 600 DT and measles vaccinations. . . The local Hospital Board was prevailed upon to donate a site for the new CHD building and Hill-Burton money was obtained. Unfortunately, the county vetoed the issue in the elections last November. Efforts are being made to obtain the local money from other sources.

TAYLOR– The CHD placed more emphasis on the Family Planning Program during 1968. In 1968, 203 persons were admitted for service, compared with 155 the preceding year. . . Personnel in the Taylor CHD were instrumental in getting a second class established for the trainable-retarded children in a local school.

UNION– There has been an increase in all medical services in the CHD due to the closing of the King Memorial Hospital in July of 1968. For the first time in 14 years Union County has been without the services of a practicing physician. The only physician in practice for many years has just returned to work after an absence of six months due to illness. Through the efforts of the County Commission, a second doctor has started practice in the county and we hope will continue. A new 25-bed hospital is planned for construction in the near future and Hill Harris funds have been approved for this project. . . Ambulance services were taken over by private enterprise with a small supplement from the County Commission. Six attendants completed the Standard Red Cross First Aid Course and were certified. . . An active school health program has resulted in Union County School Board hiring a school health aide for the three schools in the county. . . The countywide mobile X-ray survey revealed only one suspicious TB case, from 847 persons x-rayed. TB diagnosis was confirmed and patient hospitalized. . . A parasite survey of a pilot study group grades one through six was conducted with medical treatment and follow-up nursing on positive cases. . .The family planning service increased appreciably and a noticeable drop in the births of the low income group was reported. . . The sanitation clean-up program is continuing on premises and vacant lots for clearance of rubbish and debris. Sanitation problems have arisen as a result of growing numbers of chicken farms in Union County. This will be a big sanitation problem in the future, as this is rapidly becoming the big industry in Union County.

VOLUSIA– A number of significant events highlighted the year for the CHD. . . Spacious new quarters were provided for the West Volusia area with the completion of renovation of the old Post Office Building at DeLand. . . Volusia County experienced major outbreaks of influenza as well as infectious and serum hepatitis. There was evidence that drug abuse played a role in the outbreak of hepatitis. As a result, the director and staff worked closely with the Volusia County Medical Society and Daytona Beach Junior College in preparing tape recordings on drug abuse for presentation on radio and in the schools. In addition, bulletin boards were prepared for each office on this subject with distribution of literature. . . As a result of the continued assignment of a full-time investigator to the CHD, the VD Control Program was very productive. There was a slight increase both in early syphilis and gonorrhea as compared with 1967. One concentrated source of infection at a local college which regularly produced many early cases of syphilis has been eliminated due to complete pre-registration and intensive blood test follow-up, which produced and brought to treatment eight early cases of syphilis. With the cooperation of college officials, this procedure will be continued in the future. . . In a cooperative program with the Volusia County Dental Society, every primary school in the county received dental kits and literature and was visited by the public health dentist or a member of the School Committee of the Volusia County Dental Society. . . In June a program for emergency dental care of indigent pre-natal women was initiated, under the direction of the Dental Program with the cooperation of the Visiting Nurse Association, the MCH Program and area dentists. . . A survey was made of all X-ray equipment in the county in cooperation with the SBH with follow-up and correction of deficiencies. . .All of the proposed sewer lines have been installed in Daytona Beach Shores. Connections to these lines were begun in May with approximately 103 connections out of 400 being made to date. Sewage is pumped across the river to the Daytona Beach treatment plant. Daytona Beach also provides sewage treatment for South Daytona. All cities along the East Coast of Volusia County now have sewage treatment plants. . . After a number of years of discussions and meetings, approved dumping facilities for septic tank pump trucks are now available at the Daytona Beach Sewage treatment plant.

WAKULLA– The addition of one nurse has increased our efficiency in follow-ups on family planning and our visiting nursing program. . . The school health program now includes physicals on all first graders, kindergarteners, fifth, seventh and 12th graders. . . Blood sugar, TB testing, uric acid, VDRL, HgB and immunization were done on all 12th grade students. TB testing was done on 620 students in first, sixth and seventh grades . . . Vision tested 1206 students; audiometer tested 560. . . Dental Mobile Unit secured for the County. . . Construction was completed on the elevated tank, the pipeline and distribution system, well-field, and the major elements of the treatment plant for the St. Marks public water supply . . . The Sopchoppy public water system was completely funded, the well-field was approved, contracts were awarded and this project is now ready for construction to begin. . . More pasteurized crab meat was shipped this year than ever before, with one additional plant installing pasteurizing equipment. We welcome one new fresh crab meat plant and one new oyster shucking packing plant to our seafoods industry. . . Twenty-three county school lunchroom workers participated in a food handlers training program. . . One new package sewage treatment was put into operation. . . Three new trailer parks were built in the Wakulla Station area.

WALTON-WASHINGTON-HOLMES– Due to reports of virulent diphtheria in adjacent counties of Alabama and Florida, a concentrated effort was made to increase the immunity level in preschool and school age groups of all three counties. All school students received Diphtheria-Tetanus boosters or a series of two doses unless immunized within three years. (Approximately 10,000 doses in the three counties.). . . A measles vaccine program was initiated in all schools. All students who had experienced neither vaccine nor disease were immunized. . . Under Regional Medical Programs a demonstration project on countywide screening for and follow-up of hypertensive individuals was initiated. This project was one of five such projects approved nationwide and is the only strictly rural activity. . . The number of participants in our family planning programs in all three counties continued to increase. The addition of IUD insertion in the CHD clinics has been a needed and well-accepted improvement. . . A continuing educational program on solid waste disposal was augmented by cleaning up five unauthorized dumping sites and placing of No Dumping posters on these and other locations. Vector spray programs were extended to new areas in all counties . . . Several communities in each county have either initiated or completed public water systems (Vernon, Caryville, Wausau, Freeport, Inlet Beach and Paxton). The new sewage plant in Vernon is in operation and approximately 99 per cent of the resident homes are connected. Several low income housing projects have been constructed in the county. . . The school health programs in Walton and Holmes Counties have been augmented by additional nursing time added under Title I funds. . . The home nursing program is increasing in scope in Walton County (1400 visits annually) with the majority of visits paid by Medicare.

HOME HEALTH SERVICES

January 1, 1968 - June 30, 1968

The staff of the Office of Home Health Services coordinated consultation and Medicare certification procedures for 60 home health agencies providing home health services in 53 counties. Consultation assistance was received from the Division of Public Health Nursing, SBH. Twenty-three surveys were completed by the public health nursing consultants and 75 consultation visits were made by the nursing and records consultants for a total of 98 on-site contacts with certified home health agencies. One new agency was certified and four certified agencies withdrew from the Medicare Program.

Two physical therapists, assigned to 14 CHDs, made 639 home visits to 317 patients; conducted 23 inservice education programs for staffs employed by CHDs, hospitals, and nursing homes; participated in a respiratory screening program in one county; and provided field experience for two student physical therapists.

A one-day home health services workshop was planned and conducted by members of the advisory committee to the coordinator of home health services. Members of the committee were representatives from the various disciplines providing care to patients in their homes.

July 1, 1968 - December 31, 1968

Consultation, coordination, and certification activities of the staff of the Office of Home Health Services were altered when another service was added to the Medicare Program, effective July 1, 1968. The responsibility for consultation and certification procedures for rehabilitation agencies, clinics, and public health agencies providing outpatient physical therapy services to Medicare beneficiaries was assigned to the Office of Home Health Services. Survey teams, composed of physical therapists, sanitarians, building, electrical, plumbing, and fire inspectors and the program coordinator, conducted 19 surveys of potential providers of services. Five rehabilitation agencies have been certified by the Social Security Administration.

From July 1 to August 31, therapists made 126 home visits to 77 patients and provided three inservice education programs for a nursing staff employed by a hospital.

A total of 107 visits was made to 62 home health agencies in 52 counties by the public health nursing and records consultants, 23 of which were for the purpose of conducting surveys. Three new agencies were certified and one certified agency withdrew from the Medicare Program.

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PHARMACEUTICAL PROGRAM

The program is responsible for ordering and distributing drugs, biologicals, contraceptives, and devices to all the county health departments. Cost to the SBH was more than one half million dollars in 1968. Expenditures for contraceptive drugs accounted for more than $200,000 of this amount.

A total of 29,243 prescriptions were filled last year: 12,416 for contraceptive drugs, 11,629 for rheumatic fever drugs, and the remainder, primarily, for TB drugs.

Iron tablets, purchased in bulk, are being repackaged for a saving of 1000 per cent. As the program expands, other drugs — such as those used for TB and rheumatic fever — may also be bought in bulk and repackaged, providing additional savings.

HEALTH MOBILIZATION PROGRAM

The Health Mobilization Program (HMP) is concerned with the survival of the citizens of the state in time of man-made or natural disaster. The program arranges for various types of training to be offered to both professional and non-professional persons to enhance the survival chances of the population.

As a delegate agency of the State Department of Civil Defense (CD) the SBH through the HMP is responsible for formulating emergency health and medical plans, and plans for the emergency management of health resources including manpower, facilities and supplies. Both of these plans are included in the respective state plans as Annex VI thereto.

Medical Self-Help

Medical Self-Help (MSH) is a 16-hour training course in emergency health and medical preparedness designed to enable the individual or the family group to survive for periods of up to two weeks without professional medical aid. Under provisions of a federal 100 percent refunding contract, the SBH employed a MSH coordinator through November whose sole duty was to promote the program. The contract was terminated by federal authorities.

Fifty-seven counties are currently offering MSH training under CHD's, CD, or the County Board of Education; 28 school systems are included. There are also numerous group teaching sessions among various adult organizations. This year the U.S. Navy, at its Orlando Training Center, accepted MSH training as a regular part of recruit training programs.

To date, 253,788 persons have completed MSH training in the state.

Medical Stockpile Program

The Medical Stockpile Program for 1968 was a continuation of the project started in 1967. Thirty-six new Hospital Reserve Disaster Inventory (HRDI) contracts were negotiated with 36 community hospitals, and 27 revised contracts affiliating Packaged Disaster Hospitals (PDH) with community hospitals were concluded. In addition, three Natural Disaster Hospital (NDH) contracts were negotiated with two counties. Negotiations are underway to affiliate two others early in 1969. These new units were made available for the first time this year.

Components of two PDH's were used during Hurricane Gladys and cots from a third were shipped across a county line, but were not used. One PDH suffered water damage during the storm when part of the storage building roof blew off. This unit had to be returned to the servicing depot in Mississippi for refurbishment and repackaging. One PDH did not meet the revised storage criteria and had to be moved from the North Florida Civil Defense Area to the South Florida Civil Defense Area (SOFA) where acceptable storage was made available.

A federal program to convert all old model PDH's with varying components to the new 10,000 series standard with a single inventory was instituted this year. The project in Florida is about half complete and will continue into 1969.

Personnel

A new U.S. Public Health Service assignee was stationed in Florida this year for duty in SOFA. This assignment is a national first; all others have been assigned to a single city for the purpose of planning and training for that city only.

Training

The highlight this year was a series of five seminars held throughout the state and conducted jointly by the Florida Hospital Association and the HMP. They were attended by 334 persons representing community hospitals, CHD's, CD, and the American National Red Cross.

Several communities have conducted community training exercises on their own initiative following the training guidelines of previously HMP sponsored drills.

One staff member has been utilized by the American Hospital Association on two occasions in a staff teaching position to demonstrate moulage techniques at national meetings.

DIVISION OF NUTRITION

MILDRED KAUFMAN, M.S.
Director

Responding to increased public and professional demand, the division planned, directed and provided nutrition services for public health programs and increasingly provided consultation to agencies not employing qualified nutritionists. In 1968, 28 nutritionists served 51 counties. Regional nutrition consultants regularly scheduled visits to 20 county health departments (CHDs) and responded to requests from 26 other CHDs. Five CHDs employed one or more full-time nutritionists for their general or specialized public health programs. Three State Board of Health (SBH) assigned nutritionists developed county nutrition programs in four counties with the plan that these counties will budget staff positions within the next two years.

Populations with increased nutritional requirements continuing to receive priority are pregnant women, preschool children, adolescents, older adults, persons with chronic conditions managed by diet therapy and low income families having a large proportion of nutrition related health problems. Lofenalac was provided to 43 children with phenylketonuria, and 40 received diet counseling.

With the increase in nutrition services requested of the same staff, increased efforts have gone toward preparation of materials, group teaching, inservice education for professional staff and training of aides. Six issues of *Nutrition in a Nutshell* were prepared and distributed to 900 readers. Inservice education programs for public health nurses covered prenatal diet, food budgeting, use of commodity foods, diets for heart disease and diabetes and ways to make the most effective use of available nutritionist's time. Nutritionists continued to train new home health aides and provide education and guidance to those already employed. Assistance was given to county community action programs in training community aides in Dade, Lee, Gadsden and Holmes Counties. Preliminary plans were made to cooperate with Agriculture Extension Service in training of 220 half-time home economics program aides to assist families with food use, meal planning and preparation of commodity foods in 13 counties.

A program is being written for nutrition services to seasonal farm workers' families and concentrated services were provided in participating counties. Liaison with the Bureau of Maternal and Child Health has resulted in the preparation of a nutrition education outline for the "pregnant teenager". The leaflet, "Food For A Healthy Mother and Baby", was printed and 12,500 copies have been distributed for use in counties and projects. A booklet on the diet for the child with phenylketonuria was written and is near publication. Work has begun on teaching materials on infant and preschool feeding and family nutrition.

Institutional consultants, along with the regional and county nutritionists, visited 60 hospitals, 174 extended care facilities and 133 child caring programs. One hundred persons (qualified in dietetics or institutional management) were recruited and training/consultation was provided to assist them in qualifying as consulting dietitians to 57 small hospitals and 157 extended care facilities. One three day short-term training course attended by 50 dietitians and two followup regional workshops attended by 150 dietitians were conducted with the Florida Dietetic Association. Assistance was provided to nine programs for food service supervisors throughout the state.

Nutritionists participated in four regional seminars to interpret nursing home rules and regulations to CHD personnel and worked with the Head Start Regional Training Officer at Florida State University to evaluate food service and nutrition education components.

Continuing services were provided to diabetes screening and educational programs. Articles on meal planning and recipes were written for the Bureau of Adult Health and Chronic Diseases for 12 issues of *Timely Topics*. The leaflet, "Your Food Plan", for calculated diets for diabetes and weight control was revised and illustrated with commonly used Florida foods. Services were provided to the Florida Diabetes Association Camp Immokalee and consultation was given to the new diabetes patient and professional education program of the University of Florida. With publication of the National Diet-Heart Study, the Florida Heart Association (FHA) requested assistance with four community programs on calorie and fat controlled diets. Nutritionists also provided counseling for patients at the FHA's second annual stroke camp and consultation to its Community Service Committee.

National publications citing hunger and malnutrition in the United States created interest in a statewide Nutrition Status Study and preliminary planning began with staff of the SBH and Division of Comprehensive Health Planning of the State Planning Office. As a followup to a national investigating team, a survey of health data and resources to meet nutrition needs was made in Collier County and continuing help is being given to 23 children identified as having nutrition related health problems. As part of Project Concern in Gainesville, nutritionists studied food habits of 75 women -- finding the majority to have nutritionally inadequate diets. This provided background for teaching low income women better use of food resources.

During 1968 the number of counties distributing commodity foods to needy families increased from 28 to 48 and the number of foods from 14 to 22 thus providing food to essentially meet the 1968 National Research Council Recommended Dietary

Allowances. Nutritionists interpreted the program to interested community leaders, CHD staffs, other agency workers and in 13 counties presented demonstrations to recipients to encourage their use of foods distributed by the U. S. Department of Agriculture.

Field experience was provided to five graduate students in public health nutrition from four universities.

Cooperation with other agencies and training of aides from related programs to assist in nutrition education has been started but needs evaluation to assess effectiveness. With attention focused on the disadvantaged, the need for simple, more dramatic and motivational techniques to teach food selection and use is apparent. An immediate objective for the coming year is to develop and test such techniques.

The public interest in problems of hunger and malnutrition make it critical that accurate data on the nature and extent of nutrition related health problems be established as a baseline for public health nutrition program planning. Implementation of a nutrition status study is a primary objective for 1969. Though available funds will determine the size and scope of such a study, the methodology should be developed so that some aspects can be built into ongoing public health programs and the findings used to direct future programs.

DIVISION OF SANITATION

A. W. MORRISON JR., R.S.
Director

Responsibilities of this division continue to widen in scope even though general program subject matter remains basically the same. Primary emphasis of this division is to provide consultative services and other supporting assistance for the county health departments (CHD). Objectives remain focused on activities that assist local environmental health programs in coping with present and future problems in each of the 67 counties. Recruitment and training of sanitarians assume increasing prominence in activities of the division, along with administration of certain state-wide environmental health programs and cooperative program activity with other State Board of Health (SBH) bureaus and divisions. Contacts are maintained with local, state and federal agencies in the several program areas of mutual interest and responsibility.

CONSULTATION SERVICES

Priority was given to assisting health officers, sanitation directors and field sanitarians. Professional staff members made 354 visits to the counties in 1968. Program evaluation encompassing the entire sanitation activities was made in two counties. Serving in their capacity as certified rating officers, two consultants completed a survey of the food hygiene program in a large county. Efforts were continued in the field of environmental health planning.

Until they were discontinued by the newly formed personnel board, consultants served as panelists on oral boards for sanitarian trainee applicants. They also participated in sanitation surveys, attended area meetings on poultry house sanitation and assisted in solid waste surveys. Staff members also cooperated once again in the summer Health Project in Teacher Education (for further details see Division of Health Education).

TRAINING

Assistance was provided to the CHDs in planning and conducting local training programs for CHD personnel and industry groups. Basic and advanced level courses for local environmental health personnel were conducted at the state level. The division continued to coordinate U. S. Public Health Service (USPHS) training courses for sanitarians and assisted professional organizations in the development of annual educational programs.

A course, "Supervision: Theory and Practice", designed for supervising sanitarians in the CHDs, was presented in two locations during the year. A total of 66 persons attended these presentations. Two 12-week general sanitation courses were conducted. This course provides comprehensive classroom and laboratory coverage of environmental health and includes field work in selected CHD's. Nineteen sanitarians from 12 counties attended this in-service training program.

Eighteen sanitarians were enrolled in the USPHS home study series. At the close of 1968, we had enrolled a four-year total of 288 persons in these courses as follows: Environmental Sanitation, 65; Basic Mathematics, 64; Communicable Diseases, 86; Vector Control, 55; and Water-Borne Disease Control, 18.

Food worker training programs were conducted in 15 counties with a combined total of 4573 persons completing courses during the year.

PROGRAM ADMINISTRATION

Division responsibilities in the administration of some 16 environmental health program areas were continued. Five programs require SBH license or operating permit and another involves official recommendations to USPHS for required federal certification. Field activities with these and other programs are conducted by CHD sanitarians. Staff consultants provide technical assistance to the counties in all of the program areas.

ENVIRONMENTAL HEALTH PLANNING

ManaSota-88, a project which includes both Manatee and Sarasota Counties, continued as a major activity during the year. The two-year study report, with recommendations for solving current and future problems in environmental health, was completed by local committees during 1968. This comprehensive material was edited by the staff and copies of the report document should be available in early 1969.

Staff consultants are now prepared to assist in the development of local environmental health planning projects in additional counties.

FOOD HYGIENE

Continued emphasis was placed on food sanitation activities directed toward the prevention of food-borne illness. Particular direction was given to improvement in the practices relating to preparation, storage and handling of potentially hazardous foods. Prompt investigation is made of all reported food-associated illness. Staff consultants, as well as medical epidemiologists and professional personnel from other bureaus, continue to assist CHDs in food-outbreak investigations.

The counties recorded 32,151 food establishments; eating and drinking (food service) - 21,852; food processing - 966; abattoirs - 164; shellfish and crustacea - 163; grocery and meat markets (food outlets) - 7928; others - 1078. CHD sanitarians made 164,961 visits to these food establishments in 1968.

TRAILER PARKS

Florida's 2937 permitted trailer parks now provide 130,171 coach spaces. This represents a net increase of 9745 spaces over 1967 totals. There was also a net increase of 194 parks. Continued progress is indicated in the number of spaces served by municipal water and municipal or other central sewerage systems. Over 53 per cent of the spaces are now served by municipal or central sewerage systems and 60 per cent by municipal water. The division's 530 permit transactions for the year included: 223 new parks; 29 parks closed; 135 park expansions; and 143 changes in ownership, park name or number of spaces. Park size ranges from two up to more than 1000 spaces while the average park contains about 44 spaces. CHD sanitarians made 10,616 visits to the trailer parks during 1968 in order to insure the best possible sanitary conditions.

FOOD PROCESSING PLANTS

Operating permits were issued to 896 plants, representing an increasing variety and number of food processing facilities. This is a net increase of 106 plants over the previous year. CHD sanitarians made 6649 visits to these plants during the year.

CAMPS

Facilities for housing people in permitted camps continue to increase. A record 414 camps with facilities for housing 51,301 persons were licensed during the year. Migrant labor camps were given increased emphasis by the division staff during the past year and they have continued to work closely with CHD sanitarians in their aggressive efforts to upgrade these facilities. The 336 migrant labor camps provided space for 41,287 persons. Recreation camps now total 78 and have facilities to house 10,014 persons. Continued demand for recreational facilities is evident in this program and the trailer park program. Sanitarians made 5559 visits to the camps in 1968.

BOTTLED WATER PLANTS

Florida plants permitted to bottle drinking water numbered 23 during 1968. In addition to these plants, four companies from other states were permitted to sell bottled water in Florida. CHD sanitarians made 426 visits to these facilities. Products were regularly sampled for laboratory analysis.

RENDERING PLANTS

Seven operating permits were issued to rendering plants in six counties. One plant discontinued operation during the year. CHD sanitarians have continued to closely observe these operations to assure proper environmental controls.

COMMON CARRIERS

Cooperative agreements between the division and the USPHS continued in handling the Federal Interstate Carrier Certification Program in Florida. This program includes control of water and food placed aboard aircraft, steamships, railroad trains and buses and the handling and disposal of liquid and solid wastes from these commercial carriers. CHD sanitarians conduct regular surveys of facilities and operations involved, and submit reports to the division. This information serves as a basis for the division's semi-annual recommendations to USPHS. The 155 facilities recommended for approval in 1968 include: 29 airline catering points; 25 airline servicing areas; nine bus servicing areas; four railroad commissaries and catering points; 14 railroad watering points; and 74 vessel watering points. Staff consultants have intensified their efforts in this program and continue to work closely with CHD sanitarians. The division maintains close liaison with personnel from the USPHS who are also available for assistance.

OTHER PROGRAMS

All CHDs are involved in other environmental health programs. These activities include the areas of: water supply; liquid and solid waste disposal; school sanitation; housing; swimming pools; nuisance abatement; rabies control; hospitals and nursing homes; child care centers; recreational areas; public buildings; and other facilities. For further details see Table 26, Major Activities of Local Health Units, Florida, 1968. Staff consultants provided assistance to health officers and sanitarians in all of these program areas throughout the year.

TABLE 25

PERMITTED ESTABLISHMENTS AND FACILITIES, FLORIDA, 1968

COUNTY	Trailer Parks	Food Processing Plants	Camps	Bottled Water Plants	Rendering Plants
Alachua	43	31	4	—	—
Baker	4	—	—	—	—
Bay	68	10	—	—	—
Bradford	—	—	—	—	—
Brevard	133	11	4	—	—
Broward	132	35	7	—	1
Calhoun	2	—	—	—	—
Charlotte	27	6	1	—	—
Citrus	6	—	2	—	—
Clay	18	1	7	—	—
Collier	31	11	98	—	—
Columbia	6	1	1	—	—
Dade	105	203	34	4	2
De Soto	—	3	—	—	—
Dixie	6	—	1	—	—
Duval	95	58	1	1	—
Escambia	126	24	3	—	—
Flagler	13	—	1	—	—
Franklin	9	3	—	—	—
Gadsden	8	1	—	—	1
Gilchrist	—	—	—	—	—
Glades	5	—	4	—	—
Gulf	8	—	—	—	—
Hamilton	21	—	—	—	—
Hardee	10	—	—	—	—
Hendry	11	—	4	—	—
Hernando	5	3	2	—	—
Highlands	18	—	2	—	—
Hillsborough	261	64	31	—	1
Holmes	1	—	—	—	—
Indian River	24	2	1	1	—
Jackson	12	3	1	—	1
Jefferson	2	—	—	—	—
Lafayette	—	—	2	—	—
Lake	51	—	5	—	—
Lee	97	27	3	1	—
Leon	71	10	—	1	—
Levy	12	—	—	—	—
Liberty	—	—	—	—	—
Madison	2	—	—	—	—
Manatee	79	42	7	3	—
Marion	33	2	—	—	—
Martin	34	2	—	1	—
Monroe	60	—	—	—	—
Nassau	15	—	—	—	—
Okaloosa	96	4	1	—	—
Okeechobee	30	—	—	—	—
Orange	122	63	6	1	—
Osceola	23	3	—	1	—
Palm Beach	121	22	109	4	—
Pasco	82	4	9	1	—
Pinellas	297	69	7	2	—
Polk	158	55	31	—	—
Putnam	62	4	5	—	—
St. Johns	16	11	4	—	—
St. Lucie	31	10	4	1	—
Santa Rosa	19	—	—	—	—
Sarasota	81	52	3	1	—
Seminole	4	10	—	—	1
Sumter	13	—	—	—	—
Suwannee	5	2	—	—	—
Taylor	6	1	—	—	—
Union	—	—	—	—	—
Volusia	100	30	7	—	—
Wakulla	1	—	—	—	—
Walton	3	—	2	—	—
Washington	3	3	—	—	—
Out-of-State	—	—	—	4	—
TOTAL	2937	896	414	27	7

TABLE 26

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, FLORIDA, 1968

COUNTY	A. COMMUNICABLE DISEASE CONTROL											
					Immunizations Completed							
					Smallpox				Diphtheria			
	Admissions to Service 1	Field Visits 2	Office Visits 3	Treatment for Parasites 4	Under 1 year 5b	1–4 years 5c	5 and Over 5d	Boosters and Revaccinations 5e	Under 1 year 6b	1–4 years 6c	5 and Over 6d	Boosters and Revaccinations 6e
Total 1968	4185	5004	2613	30373	1582	16413	18148	45589	20107	17299	23935	95954
Alachua	61	99	2	1326	8	272	154	1248	521	304	188	2580
Baker	0	0	0	167	7	135	41	160	133	54	13	180
Bay	14	19	5	243	120	406	347	641	463	281	430	1395
Bradford	34	10	32	142	10	122	135	85	130	72	83	423
Brevard	193	214	69	128	26	564	424	1038	398	476	488	1353
Broward	211	321	88	2127	38	1251	699	729	1578	1080	1490	3590
Calhoun	0	0	0	79	3	59	126	64	59	54	41	341
Charlotte	4	2	25	10	0	3	1	328	66	38	25	257
Citrus	2	1	1	44	0	29	20	72	40	63	18	240
Clay	47	89	22	88	4	83	111	117	54	97	98	355
Collier	74	47	50	320	40	93	60	55	128	231	301	483
Columbia	16	16	24	166	129	209	230	402	261	283	443	1122
Dade	851	1316	220	742	58	1554	1853	14213	2541	1470	3096	12129
De Soto	43	40	32	233	21	26	152	166	113	57	144	407
Dixie	0	0	0	88	0	16	19	57	74	58	23	243
Duval	167	366	13	1000	55	530	391	423	832	1295	1081	2500
Escambia	31	30	44	2345	27	1179	721	3621	1378	990	749	8154
Flagler	3	0	2	118	9	12	14	20	28	36	42	98
Franklin	2	1	2	465	1	56	55	52	52	51	77	297
Gadsden	14	12	14	1330	0	265	721	1288	295	190	462	1485
Gilchrist	10	14	7	214	3	31	26	214	26	25	66	299
Glades	39	5	37	140	0	27	33	42	28	35	41	325
Gulf	1	1	0	369	73	67	55	235	184	83	114	487
Hamilton	7	0	18	208	15	94	137	92	83	69	33	359
Hardee	9	21	1	115	9	23	82	35	104	93	93	433
Hendry	63	12	51	318	1	100	89	109	120	96	202	703
Hernando	18	2	12	61	20	105	164	31	55	38	72	281
Highlands	11	12	7	211	2	100	34	23	77	107	51	552
Hillsborough	894	845	575	968	251	1241	1250	4784	1366	1231	1002	9291
Holmes	6	6	3	361	9	53	65	221	87	69	844	1663
Indian River	6	5	4	210	23	162	151	103	99	127	102	488
Jackson	0	0	0	72	14	115	391	175	260	52	22	609
Jefferson	0	0	0	323	26	68	83	408	85	127	70	824
Lafayette	5	2	3	115	7	7	10	10	15	14	5	59
Lake	15	34	3	33	6	144	229	11	138	259	317	726
Lee	41	48	13	572	10	289	266	419	262	308	283	1041
Leon	95	48	256	188	0	208	301	1222	309	311	538	1724
Levy	7	0	13	361	2	46	46	127	81	55	162	578
Liberty	49	1	48	155	13	32	39	210	37	14	15	196
Madison	11	13	0	535	9	72	110	380	76	121	284	763
Manatee	10	72	12	32	30	203	89	214	99	256	55	455
Marion	7	7	0	463	12	257	962	2619	354	388	988	3183
Martin	0	0	0	90	2	67	177	166	84	159	201	445
Monroe	88	15	79	1	33	117	70	339	64	95	65	357
Nassau	5	5	1	1057	1	110	276	1044	86	105	346	1145
Okaloosa	140	7	149	282	27	360	433	871	384	370	310	1827
Okeechobee	0	0	0	26	1	115	103	0	58	158	149	341
Orange	57	75	19	350	129	704	829	811	746	695	1423	3636
Osceola	1	0	2	89	32	101	32	105	110	105	45	612
Palm Beach	182	484	181	336	31	738	750	849	1115	882	761	2639
Pasco	103	63	111	5024	11	165	383	431	142	194	279	1015
Pinellas	38	38	27	144	12	836	532	214	950	479	280	1853
Polk	162	111	132	671	79	1244	1189	1424	1481	1125	1862	6366
Putnam	13	12	10	478	0	139	174	198	91	169	199	656
St. Johns	32	41	12	185	7	80	613	910	128	130	412	1977
St. Lucie	1	0	1	126	0	93	400	53	149	258	556	350
Santa Rosa	1	2	0	261	8	159	114	204	235	166	62	1036
Sarasota	113	179	9	61	2	177	182	255	133	169	142	437
Seminole	12	5	31	1419	17	175	376	282	214	263	351	833
Sumter	16	5	17	610	7	142	117	224	100	86	46	268
Suwannee	0	0	0	599	1	31	56	143	82	88	87	1114
Taylor	6	5	1	495	2	135	78	214	125	156	161	702
Union	76	149	75	132	3	23	54	3	47	30	26	87
Volusia	58	73	39	157	13	213	89	111	224	193	68	279
Wakulla	7	3	7	69	7	23	31	19	40	36	35	277
Walton	3	1	2	302	22	83	115	157	101	72	1261	2231
Washington	0	0	0	224	44	75	89	99	129	58	157	2800

TABLE 26 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, FLORIDA, 1968

COUNTY	A. COMMUNICABLE DISEASE CONTROL											
	Immunizations Completed											
	Whooping Cough				Tetanus				Poliomyelitis (Injected)			
	Under 1 year 7b	1–4 years 7c	5 and Over 7d	Booster and Revaccinations 7e	Under 1 year 8b	1–4 years 8c	5 and Over 8d	Booster and Revaccinations 8e	Under 1 year 9b	1–4 years 9c	5 and Over 9d	Booster and Revaccinations 9e
Total 1968	20095	16630	8159	48019	20160	17303	29487	112021	1	4	155	69
Alachua	521	304	121	1286	521	304	197	3403	0	0	0	0
Baker	133	52	1	170	133	54	55	386	0	0	0	0
Bay	461	270	85	670	463	284	975	3031	0	0	0	0
Bradford	130	65	12	182	130	72	88	490	0	0	0	0
Brevard	397	427	229	851	397	471	494	1338	0	0	0	0
Broward	1577	1070	562	2282	1587	1142	1661	3729	0	0	150	63
Calhoun	59	56	38	276	59	59	71	518	0	0	0	0
Charlotte	64	40	23	165	67	39	27	323	0	0	0	0
Citrus	40	58	11	83	40	63	21	267	0	0	0	0
Clay	56	92	26	167	54	101	102	427	0	0	0	0
Collier	128	222	88	256	128	231	301	494	0	0	0	0
Columbia	261	283	443	655	261	283	839	1440	0	0	0	0
Dade	2601	1424	1105	7175	2533	1493	3267	13619	0	0	0	0
De Soto	113	57	24	208	118	57	150	422	0	0	0	0
Dixie	74	57	12	113	74	57	44	327	0	0	0	0
Duval	832	1113	668	1835	842	1303	1162	2838	0	0	0	0
Escambia	1378	992	322	4332	1378	979	1064	10242	0	0	0	0
Flagler	28	36	31	54	28	36	53	145	0	0	0	0
Franklin	51	51	71	209	52	51	83	364	0	0	0	0
Gadsden	284	192	53	426	303	192	541	2247	0	0	0	0
Gilchrist	26	24	10	69	26	25	73	370	0	0	0	0
Glades	28	35	16	140	28	35	41	344	0	0	0	0
Gulf	184	83	74	270	184	97	175	873	0	0	0	0
Hamilton	83	68	30	247	83	69	36	423	0	0	0	0
Hardee	104	86	7	145	105	93	108	481	0	0	0	0
Hendry	120	96	50	325	120	96	205	737	0	0	0	0
Hernando	55	38	14	153	55	38	77	437	0	0	0	0
Highlands	76	107	44	307	77	107	50	552	0	0	0	0
Hillsborough	1366	1171	135	3236	1401	1228	1183	10560	0	0	0	5
Holmes	85	80	31	301	84	72	855	1724	0	0	0	0
Indian River	99	130	84	346	101	123	108	540	0	0	0	0
Jackson	260	48	11	467	263	50	543	1095	0	0	0	0
Jefferson	85	110	38	250	87	113	149	1392	0	0	0	0
Lafayette	16	14	5	53	16	15	15	111	0	0	0	0
Lake	138	253	226	465	138	259	318	730	0	0	0	0
Lee	262	284	189	666	262	319	527	1554	0	0	0	0
Leon	309	274	185	785	309	313	553	2239	0	0	0	0
Levy	81	55	39	182	81	55	162	609	0	0	0	0
Liberty	37	14	0	92	37	14	121	489	0	0	0	0
Madison	76	91	88	309	76	116	300	839	0	0	0	0
Manatee	91	254	40	276	91	238	63	562	0	0	0	0
Marion	354	359	53	338	357	396	1031	3447	0	0	0	0
Martin	84	143	110	180	82	141	205	437	0	0	0	0
Monroe	58	104	45	275	57	94	99	485	0	0	0	0
Nassau	85	111	104	394	85	102	515	2164	0	0	0	0
Okaloosa	384	370	237	1135	384	370	348	2295	0	0	0	0
Okeechobee	58	158	98	204	58	158	140	332	0	0	0	0
Orange	744	679	229	3072	746	696	1491	3765	0	0	0	0
Osceola	110	105	27	373	110	105	44	625	0	0	0	0
Palm Beach	1115	882	369	1706	1115	882	785	1056	1	4	5	1
Pasco	142	194	20	246	142	194	279	1074	0	0	0	0
Pinellas	950	479	110	1480	950	479	533	2094	0	0	0	0
Polk	1470	1089	581	3519	1483	1129	1945	6840	0	0	0	0
Putnam	91	169	160	440	91	169	206	734	0	0	0	0
St. Johns	124	124	32	402	119	116	399	1686	0	0	0	0
St. Lucie	140	256	125	172	145	265	610	372	0	0	0	0
Santa Rosa	237	129	39	561	240	124	70	1177	0	0	0	0
Sarasota	124	165	99	354	132	175	1531	784	0	0	0	0
Seminole	209	246	183	533	219	251	327	928	0	0	0	0
Sumter	100	86	40	210	100	86	47	298	0	0	0	0
Suwannee	82	74	33	310	82	88	189	1532	0	0	0	0
Taylor	125	156	65	434	125	156	153	792	0	0	0	0
Union	47	28	13	43	47	30	32	113	0	0	0	0
Volusia	226	190	56	229	231	185	155	369	0	0	0	0
Wakulla	39	38	29	248	37	36	61	538	0	0	0	0
Walton	99	72	49	280	102	72	1266	2461	0	0	0	0
Washington	129	58	12	402	129	58	169	2912	0	0	0	0

TABLE 26 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, FLORIDA, 1968

COUNTY	A. COMMUNICABLE DISEASE CONTROL													
	Immunizations Completed													
	Poliomyelitis (Oral)				Typhoid				Rabies - Humans				Rabies Animals	
	Under 1 year 10b	1-4 years 10c	5 and Over 10d	Boosters and Revaccinations 10e	Under 1 year 11b	1-4 years 11c	5 and Over 11d	Boosters and Revaccinations 11e	Under 1 year 12b	1-4 years 12c	5 and Over 12d	Boosters and Revaccinations 12e	Total Animals 13	Boosters and Revaccination of Animals 13e
Total 1968	22111	18087	17338	58237	113	2545	11598	21136	12	31	171	46	70904	3338
Alachua	424	225	131	1252	1	6	35	256	0	0	0	0	0	0
Baker	120	60	25	248	0	1	35	153	0	0	0	0	154	0
Bay	432	264	111	684	0	9	203	289	0	0	0	0	0	0
Bradford	141	60	38	276	0	0	8	16	0	0	0	0	0	0
Brevard	380	412	353	390	0	10	149	94	2	2	8	7	0	0
Broward	1593	1105	828	2755	6	32	204	69	0	0	14	1	0	0
Calhoun	75	59	86	398	0	2	39	127	0	0	0	0	0	0
Charlotte	77	56	37	206	0	0	16	56	0	9	33	0	0	0
Citrus	48	70	33	158	0	0	1	17	0	0	1	0	0	0
Clay	55	100	67	285	0	23	87	44	0	0	0	0	482	0
Collier	134	204	142	228	1	3	1	4	0	2	10	0	2255	0
Columbia	216	184	226	227	0	295	847	994	0	0	0	0	0	0
Dade	2516	1771	1234	5283	0	26	677	888	0	0	0	0	0	0
De Soto	48	25	53	310	1	0	13	26	0	0	0	0	0	0
Dixie	72	52	46	46	0	1	6	24	0	0	0	0	0	0
Duval	733	1044	803	1917	5	408	408	367	4	5	9	0	0	0
Escambia	1319	1434	1981	3553	4	76	208	2336	0	0	0	0	10032	0
Flagler	37	29	11	28	0	1	5	12	0	0	0	0	0	0
Franklin	58	45	59	174	0	2	22	77	0	0	0	0	0	0
Gadsden	296	179	32	371	0	12	463	377	0	0	0	0	0	0
Gilchrist	26	21	10	91	0	2	5	61	0	0	0	0	0	0
Glades	29	29	32	32	0	59	59	199	0	0	2	0	0	139
Gulf	171	85	44	415	0	87	162	553	0	0	0	0	0	0
Hamilton	78	60	23	152	2	34	42	117	0	0	0	0	268	0
Hardee	107	111	99	285	1	1	17	5	0	0	0	0	0	0
Hendry	122	83	107	146	0	167	152	297	0	0	0	0	0	0
Hernando	70	43	87	560	0	0	0	0	0	0	0	0	0	0
Highlands	62	99	79	180	0	5	7	47	0	0	0	0	0	0
Hillsborough	1420	1385	920	8159	1	3	290	322	1	1	6	1	27575	0
Holmes	76	70	53	206	0	4	292	225	0	0	0	0	0	0
Indian River	104	115	138	430	0	15	13	138	0	0	0	7	0	0
Jackson	180	61	20	310	0	2	540	391	0	0	0	0	0	0
Jefferson	713	102	42	280	0	0	0	92	0	0	0	1	0	0
Lafayette	27	24	11	12	0	1	0	0	0	1	2	2	0	0
Lake	90	264	300	501	0	0	0	0	0	0	0	0	0	0
Lee	344	334	222	735	9	2	74	353	0	0	4	0	0	16
Leon	323	302	333	1257	0	11	144	661	0	1	2	1	0	0
Levy	79	93	159	458	1	19	218	238	0	0	0	0	0	0
Liberty	38	14	14	210	0	0	94	312	0	0	0	0	0	0
Madison	67	91	160	578	0	79	74	181	0	0	0	0	0	0
Manatee	85	225	90	377	4	2	12	15	0	1	14	2	5344	3
Marion	274	408	697	1745	24	367	2205	3283	0	0	5	0	206	0
Martin	61	124	182	286	0	4	2	14	0	0	0	0	0	0
Monroe	73	81	65	253	28	69	65	170	0	0	0	0	0	0
Nassau	75	114	428	1050	3	81	574	3018	0	2	2	1	589	0
Okaloosa	267	489	346	1711	0	0	17	96	0	0	0	0	0	0
Okeechobee	57	124	102	208	0	0	3	4	0	0	0	0	0	0
Orange	773	807	920	3383	2	238	755	1328	0	0	0	0	0	3180
Osceola	112	124	97	418	0	0	1	1	0	0	0	0	0	0
Palm Beach	3177	965	724	1423	0	8	56	44	2	0	2	0	0	0
Pasco	164	200	393	674	0	2	19	12	0	0	0	0	0	0
Pinellas	1003	573	578	2596	1	51	217	54	0	0	0	0	0	0
Polk	1478	1381	1231	3844	11	16	113	88	0	6	33	0	12651	0
Putnam	92	174	365	655	0	2	11	9	2	0	7	23	0	0
St. Johns	137	120	243	786	2	2	13	181	0	0	0	0	0	0
St. Lucie	136	209	388	163	0	0	0	18	0	0	0	0	0	0
Santa Rosa	262	146	296	611	1	24	32	287	0	0	0	0	0	0
Sarasota	128	166	145	308	0	1	1134	37	0	0	0	0	11074	0
Seminole	134	235	348	748	0	68	167	414	0	0	0	0	0	0
Sumter	116	91	133	399	0	3	2	12	0	0	0	0	0	0
Suwannee	90	79	58	333	0	0	5	20	0	0	0	0	0	0
Taylor	127	108	95	385	0	7	28	140	0	0	0	0	0	0
Union	39	37	10	44	0	8	12	37	0	0	0	0	0	0
Volusia	110	135	66	255	3	2	65	23	1	1	17	0	0	0
Wakulla	28	68	34	234	2	69	45	381	0	0	0	0	274	0
Walton	92	93	120	762	0	60	293	328	0	0	0	0	0	0
Washington	121	47	35	800	0	63	142	704	0	0	0	0	0	0

TABLE 26 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, FLORIDA, 1968

COUNTY	A. COMMUNICABLE DISEASE CONTROL Immunizations				B. VENEREAL DISEASE CONTROL							
	Measles											
	Under 1 year 14b	1-4 years 14c	5 and Over 14d	Boosters and Revaccinations 14e	Admissions to Service 1	Diagnosed Cases 2	Epidemiologic Treatment 3	Patients Interviewed 4	Patients Re-Interviewed 5	Number of Contacts Named 6	Field Visits 7	Office Visits 8
Total 1968	4167	43607	40642	175	35241	16201	7145	11326	3523	15670	39102	93072
Alachua	31	680	149	0	162	50	17	21	33	52	372	266
Baker	9	218	51	0	3	3	1	2	0	0	0	12
Bay	292	661	1009	0	159	104	20	54	0	60	156	219
Bradford	3	169	49	0	58	34	3	28	14	63	182	105
Brevard	16	107	65	2	503	245	194	57	47	118	416	608
Broward	851	1302	410	0	2377	789	1384	501	275	595	4842	5268
Calhoun	11	57	53	0	2	2	0	0	0	0	2	4
Charlotte	16	287	387	0	4	1	3	0	0	2	2	13
Citrus	1	85	47	3	7	6	6	7	0	5	0	7
Clay	0	0	0	0	7	1	3	1	0	0	0	5
Collier	45	187	91	3	244	118	120	69	97	145	440	264
Columbia	107	94	225	18	55	48	5	0	0	6	29	54
Dade	523	3120	549	0	10509	3445	1252	3855	739	5808	14804	51384
De Soto	6	692	775	1	76	38	30	39	9	35	106	46
Dixie	0	129	6	0	16	12	14	15	3	12	17	17
Duval	99	1361	1115	0	5633	1420	817	594	424	1156	4436	7873
Escambia	635	2495	1350	7	2116	1385	206	322	182	416	1001	2825
Flagler	6	50	10	0	24	21	8	18	8	53	119	35
Franklin	1	170	251	0	14	14	14	14	0	5	0	27
Gadsden	0	91	77	0	93	66	55	59	50	53	84	66
Gilchrist	3	41	10	0	2	1	0	1	0	0	2	0
Glades	0	80	80	1	20	19	17	9	1	4	7	20
Gulf	7	289	215	0	11	8	5	6	0	4	5	24
Hamilton	0	50	48	0	20	15	11	2	0	1	0	25
Hardee	12	351	409	0	4	1	0	0	0	0	0	4
Hendry	0	397	538	0	49	18	28	7	0	11	9	57
Hernando	28	78	0	0	9	8	5	4	3	4	19	17
Highlands	2	150	62	0	58	31	44	15	17	47	91	69
Hillsborough	17	15121	15986	51	2870	1773	53	1634	138	1896	1323	10693
Holmes	61	150	104	4	10	0	3	3	1	1	0	15
Indian River	3	247	273	0	371	323	314	310	12	192	69	427
Jackson	189	328	121	0	42	37	18	6	0	0	1	50
Jefferson	9	129	62	0	37	30	3	4	2	7	7	43
Lafayette	11	10	7	0	6	6	0	6	2	1	0	7
Lake	0	37	16	0	13	10	2	3	0	0	13	5
Lee	22	2278	3509	4	502	372	171	50	52	136	611	708
Leon	0	542	246	0	1340	800	186	24	36	115	369	1459
Levy	1	99	54	0	28	8	9	7	5	16	34	44
Liberty	7	58	162	0	0	0	0	0	0	0	0	0
Madison	25	41	174	0	31	12	3	7	0	0	15	30
Manatee	1	272	105	1	571	358	138	476	60	188	432	670
Marion	38	679	334	3	334	203	63	116	26	164	344	544
Martin	0	220	36	3	121	30	21	19	21	86	112	52
Monroe	9	157	91	0	200	44	45	53	14	65	223	330
Nassau	46	122	39	0	15	8	1	13	8	46	60	16
Okaloosa	74	729	433	0	102	51	32	26	12	23	91	117
Okeechobee	0	254	107	0	0	0	0	0	0	0	18	0
Orange	48	1513	5145	0	954	443	135	349	243	443	872	1322
Osceola	0	297	70	0	29	20	30	28	5	44	4	105
Palm Beach	63	1342	903	17	2451	1864	418	474	505	1667	3586	2899
Pasco	44	438	206	0	28	26	26	29	3	13	8	59
Pinellas	10	1314	659	0	748	477	0	571	84	477	940	930
Polk	279	1058	612	0	730	349	302	309	83	318	760	931
Putnam	0	297	461	1	65	42	17	34	0	16	14	81
St. Johns	93	182	0	0	191	137	151	143	21	118	143	267
St. Lucie	0	400	194	0	198	132	61	16	16	65	172	266
Santa Rosa	109	149	70	3	16	14	6	11	2	4	6	17
Sarasota	2	234	168	0	81	43	216	66	31	56	311	251
Seminole	14	237	253	0	277	127	156	146	10	103	217	355
Sumter	79	180	152	34	79	47	27	73	3	37	33	111
Suwannee	7	213	109	0	14	7	8	8	0	0	5	17
Taylor	0	254	180	0	146	109	27	102	30	148	245	167
Union	0	56	13	0	7	5	1	5	0	0	2	12
Volusia	98	192	593	4	389	367	222	484	196	553	914	726
Wakulla	4	59	22	2	11	8	5	4	0	3	0	2
Walton	22	143	772	13	17	9	7	8	0	8	7	18
Washington	78	185	170	0	12	7	6	9	0	6	0	12

TABLE 26 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, FLORIDA, 1968

COUNTY	C. TUBERCULOSIS CONTROL											
	Admissions to Service					Persons X-Rayed						
	Active Cases 1	Quiescent Cases 2	Inactive Cases 3	Contacts and Suspects 4	Atypical Cases 5	Miniature Films 6	14" x 17" Films 7	Tuberculin Tests 8	Field Visits 9	Office Visits 10	Cases Hospitalized 11	No. of Persons Started on Chemoprophylaxis 13
Total 1968	2880	1077	7655	36743	799	519336	78319	207573	49682	103614	1632	7851
Alachua	28	12	43	225	9	9063	535	545	741	290	16	57
Baker	4	3	3	25	0	0	186	239	18	121	2	2
Bay	12	8	50	28	0	0	404	188	207	44	7	18
Bradford	10	3	17	40	1	2435	146	281	125	132	3	16
Brevard	59	9	145	2994	6	109	2997	10015	1104	5701	31	97
Broward	251	30	649	3180	311	62877	5915	12623	2015	10788	178	1346
Calhoun	4	4	21	70	0	1280	91	559	88	194	3	14
Charlotte	4	2	22	67	2	0	1559	190	83	373	2	7
Citrus	5	3	16	37	0	2893	63	33	20	82	0	1
Clay	8	1	21	186	0	2941	150	289	157	433	3	27
Collier	40	2	70	351	1	6869	562	1632	591	1061	51	78
Columbia	11	3	24	110	5	0	82	960	183	411	11	33
Dade	362	14	1316	8213	0	84321	15872	9717	5750	26648	264	2004
De Soto	3	6	12	85	1	330	530	74	174	363	1	10
Dixie	3	1	10	9	0	0	25	507	20	92	3	0
Duval	356	172	877	1654	18	9710	7342	5062	3405	3744	98	250
Escambia	82	19	104	723	9	21621	1132	47359	6680	1541	54	394
Flagler	6	1	9	24	0	118	86	854	95	77	3	34
Franklin	9	0	9	26	0	483	80	269	22	93	0	3
Gadsden	18	12	29	75	4	3051	197	1150	283	366	6	3
Gilchrist	1	0	3	16	0	189	15	350	16	55	1	3
Glades	7	0	8	89	1	1394	55	303	64	122	7	36
Gulf	0	2	24	48	1	0	361	44	35	109	0	4
Hamilton	3	1	4	11	1	405	15	37	42	5	0	2
Hardee	15	11	13	46	0	0	775	50	131	106	6	7
Hendry	6	4	33	233	1	2978	203	804	142	433	5	46
Hernando	9	0	16	46	0	2076	82	93	128	196	0	11
Highlands	4	4	46	56	2	0	732	879	161	249	6	10
Hillsborough	346	209	1102	4093	32	63555	5663	8986	6717	10183	142	181
Holmes	3	2	21	468	7	0	173	1081	9	841	1	36
Indian River	26	7	55	246	2	0	483	1065	119	712	17	64
Jackson	9	8	55	357	2	0	726	4019	87	923	9	82
Jefferson	6	1	8	45	1	647	681	928	67	62	3	10
Lafayette	2	2	4	3	0	0	0	258	20	20	1	0
Lake	41	13	133	267	16	10889	463	2520	1250	596	19	95
Lee	58	37	166	352	6	13026	757	4666	879	1734	24	114
Leon	35	11	103	387	5	9365	376	5949	743	734	7	67
Levy	7	6	17	197	2	3029	98	815	372	228	4	79
Liberty	0	0	3	5	0	229	20	13	11	17	0	3
Madison	4	2	16	54	1	2320	155	170	296	194	7	59
Manatee	51	21	43	129	3	7973	435	4941	757	542	27	19
Marion	64	14	57	149	5	3669	577	3825	699	312	23	36
Martin	14	5	53	142	0	0	233	744	201	292	14	14
Monroe	13	12	37	109	6	5094	199	1408	348	489	7	15
Nassau	1	8	22	90	19	4342	212	50	267	283	9	11
Okaloosa	8	4	45	74	1	0	3708	1867	637	326	3	3
Okeechobee	5	1	9	30	0	0	28	387	54	83	5	0
Orange	153	37	150	892	9	21118	3012	12152	1182	3610	60	294
Osceola	3	2	9	436	0	0	56	327	32	491	1	30
Palm Beach	234	89	383	1326	194	43836	3158	6266	1965	4694	223	633
Pasco	20	11	69	449	11	3210	384	1629	698	2169	13	156
Pinellas	142	86	454	4507	2	39379	3646	6646	2629	8853	84	140
Polk	88	65	476	1674	45	28983	2963	22473	3156	5944	47	726
Putnam	16	12	43	228	0	5090	681	3120	117	418	13	190
St. Johns	8	4	17	69	4	0	219	296	167	133	1	46
St. Lucie	38	14	60	107	6	233	443	1735	336	581	42	3
Santa Rosa	7	4	13	34	0	0	484	659	77	84	2	1
Sarasota	21	8	50	104	2	6352	502	571	836	454	16	3
Seminole	30	18	110	343	17	0	871	3151	519	1511	15	50
Sumter	10	4	33	224	1	1456	105	727	303	529	10	43
Suwannee	3	1	28	39	1	0	135	483	37	167	2	0
Taylor	2	8	26	11	1	644	38	186	22	105	0	1
Union	0	0	2	4	0	878	70	94	16	56	1	0
Volusia	83	18	75	323	21	26107	6107	4732	1038	1040	20	115
Wakulla	2	1	9	24	2	2	24	620	102	43	0	14
Walton	6	3	32	76	2	2359	158	2078	19	228	2	5
Washington	1	2	73	9	0	408	84	830	18	104	0	0

TABLE 26 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, FLORIDA, 1968

COUNTY	D. MATERNITY SERVICE										
	Admissions to Medical Service										
	Carried Over from Last Year 1	New this Year 2	Visits by Antepartum Cases to Medical Conferences 3	Patients given Postpartum Medical Examinations 4	Admissions to Maternity Nursing Service 5	Field Nursing Visits 6	Office Nursing Visits 7	Number of Midwife Meetings 8	Visits for Midwife Supervision 9	Number of Midwife Deliveries Supervised by H. D. Personnel 10	Number Individuals Completing Classes for Expectant Parents 11
Total 1968	3233	13638	57874	10256	25074	48439	89556	95	500	6	168
Alachua	48	150	821	138	636	1383	1327	0	0	0	0
Baker	0	18	14	0	37	34	72	0	0	0	0
Bay	14	121	406	50	158	322	520	0	11	0	0
Bradford	37	113	807	142	174	330	808	0	1	0	0
Brevard	76	373	1732	115	613	1841	2359	12	1	0	0
Broward	161	1239	3545	783	1783	4734	6198	0	0	0	0
Calhoun	3	11	25	1	18	64	72	0	6	0	0
Charlotte	0	0	0	0	2	1	2	0	0	0	0
Citrus	0	2	0	1	1	13	1	0	0	0	0
Clay	19	78	506	49	114	264	692	0	0	0	90
Collier	20	201	792	95	234	345	1160	0	2	3	0
Columbia	28	139	489	118	158	260	695	11	31	0	0
Dade	940	3717	19928	2499	6472	13078	31148	0	0	0	0
De Soto	0	0	0	0	11	1	15	0	0	0	0
Dixie	20	66	275	40	91	74	319	0	0	0	0
Duval	7	72	97	1550	1960	3532	609	0	0	0	21
Escambia	10	32	122	29	306	413	157	0	9	0	0
Flagler	17	30	106	22	58	78	171	3	0	1	0
Franklin	2	17	41	4	26	37	90	0	0	0	0
Gadsden	41	282	649	6	702	578	1057	11	65	0	0
Gilchrist	0	11	28	12	30	60	106	0	0	0	0
Glades	11	32	98	1	46	72	135	0	0	0	0
Gulf	4	7	11	5	29	22	54	0	2	0	0
Hamilton	5	28	77	33	99	137	225	0	0	0	0
Hardee	3	32	33	2	41	37	99	0	2	0	0
Hendry	43	139	759	4	186	168	724	0	0	0	0
Hernando	6	13	1	4	9	9	1	2	1	0	0
Highlands	2	40	264	16	90	281	131	1	7	0	0
Hillsborough	75	312	1396	174	1319	1813	1670	0	1	0	0
Holmes	2	17	32	8	33	26	88	2	1	0	0
Indian River	0	0	0	0	79	30	124	0	0	0	0
Jackson	20	69	174	68	183	180	579	1	57	0	0
Jefferson	4	26	66	7	76	103	101	0	2	0	0
Lafayette	1	17	12	4	10	16	16	0	0	0	0
Lake	20	107	262	56	153	153	274	0	30	0	0
Lee	98	282	453	151	531	1271	2078	0	0	0	0
Leon	7	82	184	24	220	815	224	11	6	0	0
Levy	19	84	258	46	112	139	191	0	0	0	0
Liberty	1	5	7	2	13	5	22	0	0	0	0
Madison	36	90	95	60	135	181	36	0	0	0	0
Manatee	0	0	0	0	20	55	0	0	0	0	0
Marion	42	193	853	167	346	885	1108	1	15	0	0
Martin	0	7	0	3	23	4	30	0	0	0	0
Monroe	11	32	38	17	88	97	173	0	1	0	0
Nassau	0	0	0	2	47	71	8	1	2	0	0
Okaloosa	3	57	101	27	52	81	122	9	0	0	0
Okeechobee	0	0	0	0	0	0	0	0	0	0	0
Orange	292	1087	4859	858	1634	3337	8002	2	17	0	0
Osceola	13	61	200	45	99	53	365	1	0	0	0
Palm Beach	206	975	3996	701	1352	2002	5136	0	0	0	0
Pasco	21	86	134	61	151	219	501	0	6	0	0
Pinellas	342	1073	6030	712	1075	2048	7817	0	0	0	0
Polk	264	1030	3436	786	1737	3535	7084	0	2	0	16
Putnam	8	69	249	24	97	78	308	5	11	0	0
St. Johns	40	138	211	78	156	240	356	5	0	0	0
St. Lucie	19	142	483	22	161	186	804	0	2	0	0
Santa Rosa	0	0	0	0	3	14	0	0	0	0	0
Sarasota	53	184	1117	172	238	1426	1211	0	0	0	41
Seminole	37	53	284	93	293	422	753	14	165	0	0
Sumter	7	46	70	36	78	117	104	2	15	0	0
Suwannee	13	55	281	50	75	59	311	0	0	0	0
Taylor	10	42	98	0	52	94	133	1	3	0	0
Union	2	20	46	0	35	60	49	0	0	0	0
Volusia	33	189	772	55	191	357	708	0	22	0	0
Wakulla	7	18	7	14	38	25	4	0	1	2	0
Walton	7	9	14	2	23	16	52	0	2	0	0
Washington	3	18	30	12	62	58	62	0	1	0	0

TABLE 26 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, FLORIDA, 1968

COUNTY	D. FAMILY PLANNING SERVICES											
	Admissions to Service						Field Visits 14			Clinic or Office Visits 15		
	Carried Over 12			New this Year 13								
	Oral	Intrauterine	Other	Oral	Intrauterine	Other	Oral	Intrauterine	Other	Oral	Interauterine	Other
Total 1968	12712	4662	948	16166	5646	3254	12704	6856	2683	84727	19826	7171
Alachua	237	54	16	216	73	32	321	147	67	962	272	95
Baker	80	22	0	62	14	2	5	1	0	1039	51	2
Bay	28	0	0	136	12	5	238	1	2	593	14	10
Bradford	109	6	7	91	34	9	56	13	24	1181	70	28
Brevard	295	116	8	373	138	27	1299	546	94	1866	542	80
Broward	871	337	40	1376	237	235	254	85	47	3993	1172	550
Calhoun	29	7	0	30	37	7	16	106	9	221	112	10
Charlotte	15	0	0	16	0	0	20	0	0	56	0	2
Citrus	23	0	1	17	0	1	0	0	0	142	0	2
Clay	62	12	2	68	22	11	59	8	7	448	48	34
Collier	161	10	7	170	34	31	11	4	31	1125	137	137
Columbia	57	9	0	103	13	3	138	31	3	537	47	14
Dade	1148	1333	271	2129	1183	1228	2946	2389	1100	9470	5422	2711
De Soto	44	0	1	29	0	1	26	0	1	558	0	3
Dixie	73	15	7	40	8	4	9	7	2	283	27	16
Duval	1294	213	19	2342	466	79	544	202	55	5841	805	139
Escambia	647	0	0	778	0	0	267	0	0	3349	0	0
Flagler	10	0	0	32	0	0	3	0	0	91	0	0
Franklin	10	0	0	42	14	0	4	1	0	261	15	0
Gadsden	548	31	23	293	209	35	43	459	6	3132	321	149
Gilchrist	0	0	2	6	3	11	4	6	10	40	8	15
Glades	22	7	2	43	10	2	33	18	2	125	33	4
Gulf	107	9	0	43	75	0	50	85	0	1330	139	0
Hamilton	33	0	0	60	8	0	5	0	0	257	11	0
Hardee	42	0	0	48	0	0	42	0	0	238	0	0
Hendry	62	21	16	126	53	32	61	44	29	428	158	69
Hernando	100	0	5	73	0	4	30	0	1	675	0	26
Highlands	26	41	0	63	49	1	62	32	0	311	179	1
Hillsborough	785	798	108	870	695	217	160	259	95	3505	2279	430
Holmes	22	3	2	20	28	8	3	4	0	147	79	21
Indian River	105	0	0	108	0	0	5	0	0	839	0	0
Jackson	206	12	17	54	14	7	223	66	9	734	68	57
Jefferson	142	25	11	102	12	29	19	29	9	615	27	48
Lafayette	25	0	3	12	0	0	14	0	0	66	0	3
Lake	90	0	10	86	0	10	11	0	1	451	0	26
Lee	510	32	18	405	120	16	484	113	55	3495	329	70
Leon	98	22	41	164	34	94	60	4	58	861	63	143
Levy	37	16	9	66	17	15	40	19	11	457	45	23
Liberty	33	0	3	16	0	1	5	0	0	145	0	10
Madison	63	18	4	58	58	22	29	38	7	492	45	36
Manatee	5	0	0	105	0	131	44	0	8	623	0	226
Marion	134	41	5	246	61	17	214	89	26	1039	174	35
Martin	12	0	0	17	0	0	2	0	0	46	0	0
Monroe	66	0	0	74	2	0	123	0	0	423	2	0
Nassau	40	0	0	79	14	3	75	4	2	359	28	6
Okaloosa	156	0	0	101	0	0	138	0	0	887	0	0
Okeechobee	0	0	0	20	37	3	4	3	0	6	4	0
Orange	1062	399	56	901	318	172	1455	700	160	5037	1851	294
Osceola	73	0	0	89	0	0	14	0	0	437	0	0
Palm Beach	680	436	18	695	418	103	454	253	134	5027	1779	229
Pasco	91	0	0	121	26	15	61	11	2	782	65	26
Pinellas	372	182	72	792	294	187	652	326	267	3803	796	287
Polk	800	173	69	889	321	193	1290	427	243	8896	1240	519
Putnam	85	0	0	127	1	0	17	0	0	521	1	0
St. Johns	128	18	4	142	60	16	42	19	8	933	150	25
St. Lucie	15	128	18	58	107	3	50	174	1	344	334	0
Santa Rosa	14	0	0	59	0	0	43	0	0	161	0	0
Sarasota	93	36	3	194	36	30	70	15	9	514	76	49
Seminole	139	0	18	196	56	98	115	9	39	1650	185	188
Sumter	77	0	7	66	29	14	13	5	0	352	49	57
Suwannee	67	1	0	37	3	7	28	1	3	316	24	19
Taylor	28	3	3	65	72	32	21	55	9	301	130	59
Union	35	0	0	47	0	0	53	0	0	301	0	0
Volusia	205	40	5	187	60	3	76	14	5	962	263	31
Wakulla	20	31	3	18	23	7	40	29	19	83	43	27
Walton	33	2	10	35	14	19	7	2	9	237	73	62
Washington	33	3	4	40	24	22	4	3	4	338	41	68

TABLE 26 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, FLORIDA, 1968

COUNTY	E CHILD HEALTH SERVICES														
	Admissions to Well Child Medical Services						Visits to Well-Child Medical Conferences			Admissions to General Medical Clinic Service			Admissions to Nursing Service		
	Carried Over from Last Year			New this Year											
	Under 1 year 1a	1-4 1b	5-Over 1c	Under 1 year 2a	1-4 2b	5-Over 2c	Under 1 year 3a	1-4 3b	5-Over 3c	Under 1 year 4a	1-4 4b	5-Over 4c	Under 1 year 5a	1-4 5b	5-Over 5c
Total 1968	4534	9228	2365	15473	7784	5708	44351	27006	11395	4297	6856	8141	39140	38885	88717
Alachua	141	11	1	305	6	3	1169	62	7	279	539	530	799	393	597
Baker	0	0	0	0	0	0	0	0	0	8	9	10	55	25	29
Bay	26	11	0	84	6	0	446	50	2	3	1	2	733	336	225
Bradford	34	62	4	114	37	2	411	138	7	4	9	3	165	135	444
Brevard	30	16	0	170	46	5	406	87	8	14	9	0	913	884	1229
Broward	155	48	1	1092	11	2	1881	126	28	117	229	221	2129	400	1137
Calhoun	0	0	0	0	0	4	1	0	4	0	0	2	50	14	56
Charlotte	0	0	0	0	0	0	0	0	2	1	3	0	24	22	134
Citrus	1	1	3	5	2	1	4	2	0	0	0	0	5	5	47
Clay	16	3	0	95	32	167	317	85	234	12	54	72	129	129	1071
Collier	2	3	3	62	4	9	77	10	19	138	175	310	513	341	825
Columbia	47	22	13	122	80	15	232	111	26	20	13	9	176	207	81
Dade	1818	6527	1247	4430	3177	861	18211	16012	3739	1072	1022	697	9225	14992	27185
De Soto	0	0	0	0	0	0	0	0	0	0	0	0	91	11	55
Dixie	26	19	8	105	57	55	305	149	79	21	73	69	55	49	46
Duval	447	300	14	926	191	185	2428	840	243	0	0	0	2671	1351	1822
Escambia	206	202	25	564	56	46	2016	697	83	35	51	143	1396	413	1674
Flagler	2	0	0	17	1	1	17	1	1	16	23	66	53	10	54
Franklin	0	0	0	5	0	1	6	0	1	1	3	1	55	123	89
Gadsden	19	35	2	308	103	51	325	166	50	22	8	0	744	900	362
Gilchrist	0	0	0	14	2	0	53	7	0	16	1	5	49	96	349
Glades	4	2	0	0	0	0	4	2	0	85	290	461	29	43	47
Gulf	0	0	0	3	0	1	4	0	1	5	1	0	17	10	41
Hamilton	0	0	0	29	0	0	59	0	0	13	3	3	141	114	347
Hardee	0	0	0	19	1	0	19	1	0	0	0	0	79	9	213
Hendry	2	10	7	17	5	2	28	30	11	125	492	628	80	92	89
Hernando	0	0	0	0	0	0	0	0	0	45	20	21	89	2	1
Highlands	2	3	2	4	6	8	4	10	12	36	62	121	54	15	53
Hillsborough	126	498	495	1869	2018	2863	2580	3148	3911	265	509	682	3860	5949	12776
Holmes	3	11	0	15	18	0	34	44	4	9	41	32	42	107	928
Indian River	0	0	0	0	0	0	0	0	0	0	0	0	172	25	524
Jackson	12	8	2	42	3	11	48	21	16	4	0	5	171	102	307
Jefferson	1	4	0	8	1	1	8	3	0	18	156	190	142	183	96
Lafayette	16	4	0	19	17	4	70	59	11	11	32	11	13	6	10
Lake	1	0	0	47	0	0	49	0	0	0	0	0	168	203	219
Lee	19	8	10	136	0	0	163	11	13	272	443	492	696	298	461
Leon	2	10	4	69	22	6	90	41	18	81	165	171	389	906	1216
Levy	38	12	2	69	8	7	285	22	12	4	7	11	65	48	119
Liberty	0	0	0	3	3	8	3	3	8	3	5	8	24	17	31
Madison	0	0	0	18	0	0	22	0	0	11	61	1	94	82	37
Manatee	7	8	3	6	10	254	13	24	260	60	61	12	334	756	1694
Marion	63	2	0	194	9	24	497	30	1	0	0	0	306	112	553
Martin	0	0	0	0	0	0	0	0	0	26	40	44	22	31	118
Monroe	1	12	8	11	7	12	12	13	18	9	33	81	408	608	1045
Nassau	0	0	0	0	0	0	0	0	0	9	17	8	52	84	349
Okaloosa	1	0	0	13	0	0	13	0	0	1	0	0	480	182	286
Okeechobee	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39
Orange	196	316	81	879	294	221	2261	1014	438	160	88	776	2975	1696	1536
Osceola	14	8	7	23	13	8	54	32	8	8	10	5	53	52	529
Palm Beach	571	178	124	1039	236	205	4333	991	586	396	749	237	2010	501	2925
Pasco	0	0	0	33	4	3	50	5	5	28	13	32	173	353	1272
Pinellas	180	654	205	869	650	162	2094	1660	642	14	1	98	1502	2078	12130
Polk	191	86	29	765	163	161	1691	402	323	420	648	880	1829	1164	5348
Putnam	0	0	1	26	0	0	27	0	0	49	117	265	239	89	55
St. Johns	10	4	0	76	57	12	263	100	32	9	13	42	152	86	92
St. Lucie	0	0	0	0	0	0	0	0	0	111	107	105	246	343	396
Santa Rosa	6	4	8	0	0	0	0	0	0	1	0	0	71	55	340
Sarasota	0	0	0	48	12	5	95	14	10	9	43	26	290	243	1126
Seminole	20	14	2	221	119	33	297	156	66	140	261	285	747	579	785
Sumter	0	0	1	34	9	20	36	11	24	3	2	3	120	37	43
Suwannee	13	7	19	89	51	113	196	100	185	32	47	91	102	128	154
Taylor	0	1	6	7	3	0	7	4	6	2	1	5	46	41	81
Union	2	1	5	44	21	34	63	44	53	16	28	32	70	58	190
Volusia	56	94	18	264	179	71	525	428	147	0	0	0	428	400	1775
Wakulla	3	8	2	11	6	2	12	8	0	4	23	60	25	51	114
Walton	3	1	2	23	9	21	22	7	8	13	22	39	38	42	691
Washington	1	0	1	13	19	28	15	25	33	11	21	29	67	69	25

TABLE 26 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, FLORIDA, 1968

COUNTY	E. CHILD HEALTH SERVICES						F SCHOOL HEALTH								
	Field Nursing Visits			Office Nursing Visits			Pupils Examined by Physician						Screening by Other Health Dept Per.		
							Parent Present			Parent not Pres.			Visual		
	Under 1 year	1-4	5-Over	Under 1 year	1-4	5-Over	Number Examined	Referred for further Diag. and Treatment	Completed Referrals	Number Examined	Referred for further Diag. and Treatment	Completed Referrals	Number Examined	Referred for further Diag. and Treatment	Completed Referrals
	6a	6b	6c	7a	7b	7c	1a	1b	1c	2a	2b	2c	3a	3b	3c
Total 1968	66452	62406	59032	56252	45153	143175	36737	3188	2135	34218	2127	492	451559	33003	12088
Alachua	1879	808	737	1337	129	314	0	0	0	0	0	0	7689	901	248
Baker	63	41	43	16	4	14	209	0	0	0	0	0	761	32	9
Bay	1168	640	374	482	111	331	27	5	1	218	62	15	349	114	110
Bradford	294	285	379	415	70	964	197	4	0	91	0	0	470	53	0
Brevard	2287	2633	2633	440	124	306	40	3	38	777	351	34	0	1	0
Broward	4671	511	916	3959	575	961	686	148	3	496	75	2	11853	1816	933
Calhoun	79	37	88	9	8	27	27	0	0	478	4	0	289	39	6
Charlotte	53	40	258	2	20	305	1	1	0	157	8	6	1056	138	28
Citrus	8	5	56	1	2	4	94	3	0	435	47	0	986	16	0
Clay	283	153	497	335	125	1777	131	4	5	58	1	0	1856	199	107
Collier	591	256	401	421	635	1595	80	32	25	357	186	121	964	150	53
Columbia	204	224	103	338	227	67	18	4	4	54	4	3	66	2	2
Dade	18134	29046	8904	17651	18653	56817	3409	0	0	17652	0	0	73337	5470	1881
De Soto	126	11	103	0	7	9	1	1	0	1107	72	17	894	132	12
Dixie	85	84	62	12	12	9	101	2	0	96	2	0	884	34	5
Duval	4379	1905	2558	3321	1263	1192	214	299	52	34	0	16	15216	1601	413
Escambia	1775	726	2071	2050	832	3327	63	30	3	698	25	0	16850	1132	387
Flagler	91	7	36	61	23	80	22	0	0	9	0	0	608	13	4
Franklin	135	260	212	8	11	43	80	1	0	74	1	0	152	61	26
Gadsden	867	1140	410	509	234	140	663	0	0	708	70	0	1081	32	6
Gilchrist	98	145	232	155	188	726	9	0	0	89	8	0	178	50	4
Glades	59	82	89	38	65	113	49	13	9	43	16	12	56	7	2
Gulf	21	15	35	25	19	54	69	0	0	107	1	1	67	58	58
Hamilton	203	155	172	156	42	304	7	5	1	33	1	0	158	4	3
Hardee	88	21	179	24	1	89	133	31	31	553	14	10	98	95	93
Hendry	132	127	237	61	164	195	69	11	4	188	25	15	1422	86	58
Hernando	91	1	0	0	0	0	91	16	0	292	13	0	9	2	0
Highlands	84	23	57	8	12	39	20	4	2	10	0	0	8	2	4
Hillsborough	2515	2887	8491	6029	9223	15490	4209	1364	1262	977	374	87	98562	5287	2826
Holmes	29	22	47	80	146	1828	292	75	0	73	8	0	352	96	7
Indian River	161	45	82	258	28	573	12	1	0	1	0	0	2618	153	44
Jackson	241	118	286	125	70	231	14	1	0	165	27	12	784	83	9
Jefferson	210	181	66	137	217	174	221	16	3	333	32	0	33	10	1
Lafayette	30	12	12	9	10	10	221	3	0	149	5	0	285	30	16
Lake	216	196	204	69	32	82	689	3	3	97	0	1	3882	287	194
Lee	1070	279	121	692	469	650	0	0	0	18	1	0	464	44	4
Leon	1133	3188	2599	146	201	538	1176	16	0	22	1	0	7451	844	443
Levy	127	68	125	12	12	66	192	33	1	864	70	3	631	141	34
Liberty	11	28	20	18	19	22	55	2	0	76	1	0	126	8	0
Madison	174	83	41	18	17	11	0	0	0	0	1	0	0	0	0
Manatee	162	215	858	480	1540	2078	11	0	0	57	1	0	2862	348	59
Marion	971	335	795	31	10	327	54	0	0	316	0	13	2743	568	115
Martin	15	14	125	45	79	76	263	6	0	48	24	0	3032	485	163
Monroe	426	701	425	140	355	1366	127	35	12	442	28	7	3982	259	124
Nassau	66	104	299	1	14	204	176	0	0	63	2	0	2482	312	94
Okaloosa	574	309	737	72	92	340	54	0	0	2	0	0	507	24	0
Okeechobee	0	0	24	0	0	18	55	0	0	7	0	0	481	15	0
Orange	5479	3210	1238	2826	1309	1524	184	1	3	6	0	0	41215	2492	253
Osceola	35	18	353	104	72	641	159	5	0	14	0	0	881	104	168
Palm Beach	4443	1507	3456	4795	2027	7081	468	144	130	1041	153	62	17984	1439	440
Pasco	289	483	752	268	420	2551	17	1	1	1420	140	10	4879	582	121
Pinellas	3221	4064	6561	2184	1772	23286	19023	623	471	349	15	12	65108	1857	1209
Polk	3127	1546	2723	3570	1402	7202	679	98	15	798	54	1	14158	1708	718
Putnam	274	126	58	40	14	34	24	0	0	14	0	0	1020	217	28
St. Johns	277	93	97	226	134	68	90	13	6	488	32	12	1177	139	41
St. Lucie	564	641	343	143	321	259	0	0	0	0	0	0	9780	860	105
Santa Rosa	91	149	610	5	7	640	113	15	0	359	0	0	597	98	10
Sarasota	893	1037	3363	9	10	266	67	3	0	82	1	1	7011	332	119
Seminole	749	381	509	727	609	1160	254	33	29	64	5	2	6191	1084	80
Sumter	168	36	37	51	20	61	111	19	0	383	103	0	1392	103	26
Suwannee	88	223	148	175	85	189	190	2	1	60	0	2	445	45	11
Taylor	59	67	110	17	9	47	6	0	0	3	1	0	38	37	28
Union	77	102	117	57	40	230	66	10	6	143	13	9	156	32	4
Volusia	369	378	1091	762	707	2809	198	11	1	46	0	3	8945	551	127
Wakulla	82	120	197	5	8	65	200	11	3	334	45	3	1206	65	12
Walton	20	5	46	71	72	1166	342	20	6	50	2	0	528	49	0
Washington	68	54	24	21	25	10	215	7	4	40	2	0	213	5	2

TABLE 26 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, FLORIDA, 1968

COUNTY	F. SCHOOL HEALTH							G. DENTAL HEALTH (Dentist Only)							
	Screening by Other Health Department Personnel						Nurse-Teacher Conferences	Dental Inspections				Number Requiring Treatment			
	Audiometer			Other											
	Number Examined	Referred for further Diagnosis and Treatment	Completed Referrals	Number Examined	Referred for further Diagnosis and Treatment	Completed Referrals		1-4	5-17	Maternity Patients	Other	1-4	5-17	Maternity Patients	Other
	4a	4b	4c	6a	6b	6c	7	1a	1b	1c	1d	2a	2b	2c	2d
Total 1968	223770	6215	1187	50922	6799	2670	108864	227	69832	1143	469	206	25560	842	292
Alachua	5714	250	65	0	0	0	1508	0	3057	0	0	0	0	0	0
Baker	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0
Bay	0	4	1	84	3	3	461	0	0	0	0	0	0	0	0
Bradford	0	0	0	0	0	0	197	0	0	0	0	0	0	0	0
Brevard	1	1	0	0	0	0	1145	36	133	9	45	36	133	9	42
Broward	374	4	2	2819	627	221	4739	113	742	921	0	91	674	672	0
Calhoun	12	2	0	138	0	0	256	0	0	0	0	0	0	0	0
Charlotte	607	18	3	465	7	2	714	0	59	0	0	0	36	0	0
Citrus	816	26	0	23	22	14	296	0	0	0	0	0	0	0	0
Clay	24	13	8	1025	349	151	840	0	37	0	0	0	37	0	0
Collier	224	6	8	553	70	35	1008	8	4192	3	61	0	1562	0	0
Columbia	0	0	0	0	0	0	12	0	0	40	0	0	0	16	0
Dade	51332	1285	0	8207	2204	742	23773	0	2968	0	69	0	0	0	0
De Soto	921	116	3	31	0	0	572	0	206	0	0	0	78	0	0
Dixie	100	6	1	0	0	0	109	0	0	0	0	0	0	0	0
Duval	11	8	5	2847	428	87	2380	0	254	0	0	0	1150	0	0
Escambia	57	4	5	1356	91	148	5305	0	0	0	0	0	0	0	0
Flagler	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0
Franklin	12	3	1	0	0	0	45	0	0	0	0	0	0	0	0
Gadsden	405	1	0	211	0	0	979	0	0	148	0	0	0	116	0
Gilchrist	7	0	0	0	0	0	282	0	0	0	0	0	0	0	0
Glades	26	4	4	10	2	0	50	0	0	0	0	0	0	0	0
Gulf	20	0	0	370	0	0	171	0	0	0	0	0	0	0	0
Hamilton	173	0	1	47	1	2	154	0	0	0	0	0	0	0	0
Hardee	826	5	5	142	16	11	440	7	190	0	0	4	108	0	0
Hendry	789	44	1	288	28	11	250	0	0	0	0	0	0	0	0
Hernando	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Highlands	0	0	0	1	1	0	293	0	1992	1	2	0	1319	1	2
Hillsborough	50881	1480	459	4545	728	371	18081	0	6548	0	0	0	4505	0	0
Holmes	2	3	1	2	2	0	130	0	0	0	0	0	0	0	0
Indian River	34	15	0	0	0	0	354	0	0	0	0	0	0	0	0
Jackson	37	12	1	81	1	0	439	0	3530	0	0	0	679	0	0
Jefferson	185	35	1	0	0	0	69	0	0	0	0	0	0	0	0
Lafayette	295	7	3	13	0	0	15	0	0	0	0	0	0	0	0
Lake	123	9	13	212	0	1	856	0	0	0	0	0	0	0	0
Lee	1	2	0	217	1	2	150	4	6551	3	155	1	2857	3	150
Leon	4880	302	92	550	94	37	973	0	558	0	0	0	467	0	0
Levy	673	10	3	2	2	1	151	2	2227	0	54	1	1136	0	52
Liberty	104	2	1	1	1	0	16	0	186	0	0	0	165	0	0
Madison	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0
Manatee	9848	321	27	1644	13	52	2382	21	3265	0	1	11	391	0	1
Marion	127	41	5	1077	159	20	1429	0	0	0	0	0	0	0	0
Martin	45	1	0	112	11	2	334	4	37	1	31	4	36	0	28
Monroe	5201	116	28	1498	27	19	467	0	1081	0	0	0	715	0	0
Nassau	2239	174	20	8919	10	9	423	0	170	0	0	0	133	0	0
Okaloosa	25	2	0	39	0	0	388	0	0	0	0	0	0	0	0
Okeechobee	231	7	2	0	0	0	24	0	0	0	0	0	0	0	0
Orange	17989	251	34	1373	431	192	1753	0	5513	0	0	0	1328	0	0
Osceola	80	5	0	0	0	0	228	0	0	0	0	0	0	0	0
Palm Beach	8819	514	126	2638	480	210	8987	0	0	0	0	0	0	0	0
Pasco	14	11	8	623	191	130	1040	0	0	0	0	0	0	0	0
Pinellas	35046	299	143	470	21	4	12775	0	9062	0	0	0	0	0	0
Polk	433	169	37	1963	246	95	5658	0	7282	0	40	27	4554	8	7
Putnam	0	0	0	297	0	0	173	0	0	0	0	0	0	0	0
St. Johns	1	1	0	125	54	16	187	0	0	0	0	0	0	0	0
St. Lucie	8434	378	6	0	0	0	567	0	8	0	4	0	6	2	10
Santa Rosa	2	1	0	216	18	2	236	1	5268	2	7	0	1131	0	0
Sarasota	4924	30	18	5	2	20	2147	23	3045	15	0	23	1337	15	0
Seminole	1532	71	3	4140	310	16	1089	7	1071	0	0	7	423	0	0
Sumter	37	2	0	0	0	0	178	0	0	0	0	0	0	0	0
Suwannee	200	1	1	158	36	8	221	0	0	0	0	0	0	0	0
Taylor	0	0	0	0	0	0	200	0	0	0	0	0	0	0	0
Union	0	0	0	8	4	33	156	0	0	0	0	0	0	0	0
Volusia	8274	77	6	917	47	1	68	1	600	0	0	1	600	0	0
Wakulla	560	63	36	59	61	2	357	0	0	0	0	0	0	0	0
Walton	42	3	0	0	0	0	62	0	0	0	0	0	0	0	0
Washington	0	0	0	401	0	0	26	0	0	0	0	0	0	0	0

TABLE 26 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, FLORIDA, 1968

COUNTY	G. DENTAL HEALTH (Dentist Only)											
	Number Completing Treatment				Number Admitted to Clinic for Treatment				Total Fillings			
	1-4 3a	5-17 3b	Maternity Patients 3c	Other 3d	1-4 4a	5-17 4b	Maternity Patients 4c	Other 4d	1-4 5a	5-17 5b	Maternity Patients 5c	Other 5d
Total 1968	712	8308	74	197	1645	22716	332	2189	1861	60606	483	766
Alachua	0	16	0	0	0	533	0	145	0	933	0	55
Baker	0	0	0	0	0	0	0	0	0	0	0	0
Bay	0	0	0	0	0	0	0	0	0	0	0	0
Bradford	0	0	0	0	0	0	0	0	0	0	0	0
Brevard	4	7	1	1	21	82	8	30	16	82	10	21
Broward	34	309	0	0	44	1231	5	495	151	8422	0	0
Calhoun	0	0	0	0	0	0	0	0	0	0	0	0
Charlotte	0	44	0	0	0	51	0	0	0	269	0	0
Citrus	0	0	0	0	0	0	0	0	0	0	0	0
Clay	0	37	0	0	0	34	0	0	0	153	0	0
Collier	0	135	0	4	17	428	2	137	17	1204	0	102
Columbia	0	0	13	0	0	0	21	0	0	0	3	0
Dade	609	1085	0	0	1406	4125	0	202	1480	18065	0	256
De Soto	0	117	0	0	0	91	0	0	0	238	0	0
Dixie	0	0	0	0	0	0	0	0	0	0	0	0
Duval	0	239	0	0	0	1006	0	0	0	1876	0	0
Escambia	0	258	0	0	0	553	0	0	0	2220	0	0
Flagler	0	0	0	0	0	0	0	0	0	0	0	0
Franklin	0	0	0	0	0	0	0	0	0	0	0	0
Gadsden	0	0	22	0	0	0	131	0	0	0	257	0
Gilchrist	0	0	0	0	0	0	0	0	0	0	0	0
Glades	0	0	0	0	0	0	0	0	0	0	0	0
Gulf	0	0	0	0	0	0	0	0	0	0	0	0
Hamilton	0	0	0	0	0	0	0	0	0	0	0	0
Hardee	1	150	0	0	5	148	0	0	10	408	0	0
Hendry	0	0	0	0	0	0	0	0	0	0	0	0
Hernando	0	0	0	0	0	0	0	0	0	0	0	0
Highlands	0	44	0	0	0	156	1	6	0	187	0	19
Hillsborough	7	1276	5	0	9	1552	7	0	5	1374	0	0
Holmes	0	0	0	0	0	0	0	0	0	0	0	0
Indian River	0	0	0	0	0	0	0	0	0	0	0	0
Jackson	0	286	0	0	0	758	0	0	0	2353	0	0
Jefferson	0	0	0	0	0	0	0	0	0	0	0	0
Lafayette	0	0	0	0	0	0	0	0	0	0	0	0
Lake	0	7	0	0	0	17	2	0	0	2	0	0
Lee	5	264	7	23	12	575	57	23	28	1570	153	151
Leon	8	68	0	0	20	396	0	0	27	517	0	0
Levy	1	98	0	42	1	137	0	52	0	324	0	31
Liberty	0	100	0	0	0	365	0	0	0	562	0	0
Madison	0	0	1	0	0	0	3	0	0	0	0	0
Manatee	7	163	0	0	11	320	0	5	10	1238	0	2
Marion	0	0	0	0	0	1505	4	36	0	956	0	0
Martin	0	0	0	2	0	9	2	26	1	16	2	12
Monroe	0	159	0	0	0	21	0	0	0	33	0	0
Nassau	0	109	0	0	0	142	0	0	0	181	0	0
Okaloosa	0	0	0	0	0	0	0	0	0	0	0	0
Okeechobee	0	0	0	0	0	0	0	0	0	0	0	0
Orange	1	63	0	50	6	837	12	671	28	2150	0	12
Osceola	0	0	0	0	0	0	0	0	0	0	0	0
Palm Beach	1	1012	2	39	0	2951	4	177	0	3752	2	88
Pasco	0	0	0	0	0	0	0	0	0	0	0	0
Pinellas	0	753	0	0	0	1683	0	0	0	2733	0	0
Polk	23	658	14	15	69	1252	57	47	62	1709	11	0
Putnam	0	0	0	0	0	0	0	0	0	0	0	0
St. Johns	0	0	0	0	0	0	0	0	0	0	0	0
St. Lucie	0	9	0	19	0	51	1	137	0	2	0	3
Santa Rosa	0	76	6	2	0	26	0	0	0	675	0	14
Sarasota	7	391	3	0	19	658	15	0	21	2348	45	0
Seminole	4	24	0	0	4	32	0	0	3	114	0	0
Sumter	0	0	0	0	0	0	0	0	0	0	0	0
Suwannee	0	0	0	0	0	0	0	0	0	0	0	0
Taylor	0	0	0	0	0	0	0	0	0	0	0	0
Union	0	0	0	0	0	0	0	0	0	0	0	0
Volusia	0	351	0	0	1	991	0	0	2	3940	0	0
Wakulla	0	0	0	0	0	0	0	0	0	0	0	0
Walton	0	0	0	0	0	0	0	0	0	0	0	0
Washington	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 26 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, FLORIDA, 1968

COUNTY	G. DENTAL HEALTH (Dentist Only)							
	Total Extractions				Topical Applications of Flouride			
	1-4 6a	5-17 6b	Maternity Patients 6c	Other 6d	1-4 7a	5-17 7b	Maternity Patients 7c	Other 7d
Total 1968	342	15228	434	5420	334	3055	4	87
Alachua	0	163	0	298	0	47	0	0
Baker	0	0	0	0	0	0	0	0
Bay	0	0	0	0	0	0	0	0
Bradford	0	0	0	0	0	0	0	0
Brevard	2	30	4	31	2	6	0	0
Broward	14	1238	4	1426	14	378	0	0
Calhoun	0	0	0	0	0	0	0	0
Charlotte	0	19	0	0	0	6	0	0
Citrus	0	0	0	0	0	0	0	0
Clay	0	94	0	0	0	0	0	0
Collier	17	637	1	423	1	29	0	2
Columbia	0	0	9	0	0	0	4	0
Dade	242	1597	0	406	309	1254	0	0
De Soto	0	25	0	0	0	34	0	0
Dixie	0	0	0	0	0	0	0	0
Duval	0	308	0	0	0	1	0	0
Escambia	0	715	0	0	0	175	0	0
Flagler	0	0	0	0	0	0	0	0
Franklin	0	0	0	0	0	0	0	0
Gadsden	0	0	205	0	0	0	0	0
Gilchrist	0	0	0	0	0	0	0	0
Glades	0	0	0	0	0	0	0	0
Gulf	0	0	0	0	0	0	0	0
Hamilton	0	0	0	0	0	0	0	0
Hardee	2	21	0	0	0	6	0	0
Hendry	0	0	0	0	0	0	0	0
Hernando	0	0	0	0	0	0	0	0
Highlands	0	165	2	10	0	4	0	0
Hillsborough	5	1390	12	0	0	59	0	0
Holmes	0	0	0	0	0	0	0	0
Indian River	0	0	0	0	0	0	0	0
Jackson	0	538	0	0	0	122	0	0
Jefferson	0	0	0	0	0	0	0	0
Lafayette	0	0	0	0	0	0	0	0
Lake	0	1	1	0	0	6	0	0
Lee	15	402	123	177	7	199	0	0
Leon	16	361	0	0	0	0	0	0
Levy	2	209	0	352	0	0	0	0
Liberty	0	149	0	0	0	0	0	0
Madison	0	0	0	0	0	0	0	0
Manatee	4	260	0	1	0	46	0	0
Marion	0	775	6	58	0	0	0	0
Martin	0	7	0	17	0	0	0	0
Monroe	0	19	0	0	0	0	0	0
Nassau	0	165	0	0	0	0	0	0
Okaloosa	0	0	0	0	0	0	0	0
Okeechobee	0	0	0	0	0	0	0	0
Orange	1	838	0	1317	0	0	0	0
Osceola	0	0	0	0	0	0	0	0
Palm Beach	0	2041	4	229	0	215	0	55
Pasco	0	0	0	0	0	0	0	0
Pinellas	0	628	0	0	0	0	0	0
Polk	18	927	44	241	0	111	0	0
Putnam	0	0	0	0	0	0	0	0
St. Johns	0	0	0	0	0	0	0	0
St. Lucie	0	56	0	346	0	0	0	29
Santa Rosa	0	257	0	88	1	136	0	1
Sarasota	1	318	19	0	0	2	0	0
Seminole	3	33	0	0	0	0	0	0
Sumter	0	0	0	0	0	0	0	0
Suwannee	0	0	0	0	0	0	0	0
Taylor	0	0	0	0	0	0	0	0
Union	0	0	0	0	0	0	0	0
Volusia	0	842	0	0	0	219	0	0
Wakulla	0	0	0	0	0	0	0	0
Walton	0	0	0	0	0	0	0	0
Washington	0	0	0	0	0	0	0	0

TABLE 26 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, FLORIDA, 1968

COUNTY	H. CHRONIC DISEASES												
	Cancer Services				Diabetes Services					Cardiovascular Disease Control			
	Admissions to Service 1	Field Visits 2	Office Visits 3	Cervical Cytology Examination 4	Admissions to Service 5	Field Visits 6	Office Visits 7	Relatives Tested 8	Non-Relatives or Others Tested 9	Examined or Screened 10	Admissions to Service 11	Field Visits 12	Office Visits 13
Total 1968	3670	16847	8061	39772	5448	23432	20841	6216	19853	5266	10049	57975	15791
Alachua	40	221	1	624	82	449	91	5	1	4	88	788	186
Baker	4	26	6	99	19	57	128	0	0	286	31	178	69
Bay	31	208	12	52	75	353	14	8	0	0	56	511	93
Bradford	35	141	11	283	22	131	0	0	0	0	94	947	32
Brevard	122	729	74	1083	97	578	250	23	3	14	242	2114	119
Broward	19	54	21	3788	55	89	189	1851	5896	0	127	65	423
Calhoun	33	168	26	61	35	70	203	0	0	0	82	570	312
Charlotte	19	226	3	0	23	34	87	0	0	0	56	1022	31
Citrus	3	2	2	0	48	8	106	3	1	0	179	30	713
Clay	26	95	16	212	23	60	60	23	280	0	64	922	106
Collier	77	410	171	468	30	61	104	0	0	1	58	506	168
Columbia	5	66	6	157	42	49	249	1	0	22	47	1	13
Dade	73	794	7	13050	288	337	114	0	0	393	667	1027	921
De Soto	34	161	50	0	20	7	177	0	0	1	5	12	4
Dixie	5	39	3	260	6	0	41	0	16	0	25	24	123
Duval	25	59	0	1445	25	51	11	15	133	1	17	55	3
Escambia	415	1612	487	1270	359	2284	1319	217	1401	264	2283	2742	64
Flagler	3	76	9	6	13	41	28	5	24	4	40	269	46
Franklin	19	56	80	19	27	22	116	5	0	0	16	31	27
Gadsden	53	337	30	228	77	74	333	43	30	246	237	1354	1049
Gilchrist	15	109	25	33	17	9	63	6	68	0	47	147	262
Glades	7	18	18	37	18	42	157	14	8	11	32	56	155
Gulf	31	11	98	69	31	40	228	5	2	1	69	62	510
Hamilton	2	7	0	44	13	51	18	0	0	43	43	167	130
Hardee	19	35	14	0	22	12	79	0	0	0	8	107	58
Hendry	10	20	35	214	44	112	315	21	20	18	47	111	299
Hernando	1	10	15	0	56	196	160	0	0	0	85	313	280
Highlands	23	98	7	107	40	39	202	4	0	0	5	6	4
Hillsborough	200	1067	694	1873	742	1226	2938	112	59	0	675	6518	280
Holmes	24	26	52	37	115	27	364	27	27	297	62	120	191
Indian River	18	153	13	0	111	98	509	3	4	0	29	510	39
Jackson	35	326	45	153	58	82	359	205	880	2	57	522	168
Jefferson	13	81	6	325	37	77	107	139	384	569	0	163	85
Lafayette	7	7	0	9	16	17	52	2	0	39	81	285	44
Lake	50	65	3	28	74	289	160	0	0	1	42	58	14
Lee	48	1030	3	775	51	295	159	482	1100	0	273	1328	345
Leon	83	201	203	353	80	955	230	169	591	0	73	1274	3
Levy	13	36	0	230	30	76	19	21	89	0	82	232	196
Liberty	5	4	3	0	18	3	120	0	42	0	206	754	1145
Madison	8	14	6	286	29	15	95	0	0	7	8	7	99
Manatee	37	417	1	0	65	451	452	12	88	4	143	895	79
Marion	15	87	0	391	109	466	501	0	0	0	116	1109	20
Martin	12	17	16	4	9	14	25	0	0	6	25	34	66
Monroe	79	220	178	150	72	139	404	240	671	1186	73	101	116
Nassau	41	70	15	66	36	45	41	88	593	223	60	117	24
Okaloosa	46	312	7	129	69	541	161	2	3	1	158	4820	469
Okeechobee	18	112	3	65	7	6	86	0	0	0	6	23	23
Orange	342	24	2158	2625	97	157	246	84	2658	109	243	148	31
Osceola	9	3	11	63	0	11	43	15	0	2	19	17	167
Palm Beach	331	330	739	3316	430	522	3172	4	67	35	544	1071	2902
Pasco	81	384	141	0	120	247	480	22	12	0	103	275	220
Pinellas	480	2519	1985	1790	360	1032	1170	742	1837	1306	968	9693	814
Polk	93	731	136	2112	254	869	893	49	88	58	196	1249	276
Putnam	19	80	4	19	36	32	125	11	67	3	97	794	188
St. Johns	21	65	38	46	132	192	288	1100	1257	2	24	87	11
St. Lucie	47	249	177	199	35	183	251	0	0	0	31	80	133
Santa Rosa	9	163	13	1	142	487	607	384	320	0	142	2476	312
Sarasota	93	583	1	243	56	455	14	6	934	0	166	1293	30
Seminole	26	186	4	214	33	119	124	4	13	34	59	824	120
Sumter	29	52	27	11	60	18	119	14	13	0	33	36	72
Suwannee	27	93	22	156	24	117	13	0	0	18	65	530	303
Taylor	29	29	40	116	20	16	110	1	0	0	8	26	28
Union	7	17	5	0	10	20	57	0	0	22	45	63	3
Volusia	70	1076	13	244	157	8742	724	0	170	0	240	5215	269
Wakulla	20	43	18	39	17	57	35	4	0	20	52	151	87
Walton	21	152	15	36	61	72	473	14	3	0	62	856	168
Washington	15	35	11	59	69	6	273	11	0	13	33	84	51

TABLE 26 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, FLORIDA, 1968

COUNTY	H. CHRONIC DISEASES						J. MENTAL HEALTH							
	Glaucoma			Other Chronic Diseases			Admissions to Service			Field Visits		Office Visits		
	Examined or Screened 14	Referred for further Diag. or Treatment 15	Completing Referrals 16	Admissions to Service 17	Field Visits 18	Office Visits 19	Children 1	State Hospital Patients 2	Other Adults 3	With Patients 4	About Patients 5	With Patients 6	About Patients 7	Mental Health Conferences 8
Total 1968	17950	534	538	12781	78670	20456	4798	5788	4624	17369	15534	28053	19666	18351
Alachua	0	0	0	113	743	55	85	325	328	1019	1525	3148	1154	211
Baker	0	0	0	6	226	2	0	4	0	1	6	17	28	0
Bay	0	0	0	81	240	24	3	195	102	593	87	304	404	59
Bradford	0	0	0	161	1139	369	1	37	3	94	20	34	4	0
Brevard	0	1	0	628	3413	333	71	107	111	705	484	154	195	8
Broward	6956	169	191	712	687	819	22	138	93	369	276	15	8	2
Calhoun	0	0	0	33	159	95	12	36	0	64	56	93	103	82
Charlotte	0	0	0	65	1249	103	28	7	10	27	67	27	67	43
Citrus	0	0	0	40	100	120	39	71	15	69	152	93	141	64
Clay	0	0	0	117	526	69	9	49	21	82	26	155	25	0
Collier	0	1	0	101	884	110	96	104	143	226	698	540	432	184
Columbia	0	0	0	152	422	147	0	8	0	4	5	0	2	0
Dade	339	13	0	531	1050	166	2540	758	816	3389	4370	10291	6116	4314
De Soto	0	0	0	58	173	62	230	1	4	168	123	70	126	79
Dixie	0	1	1	41	149	300	8	3	9	12	19	24	16	2
Duval	139	1	0	84	175	10	63	391	150	1012	697	98	145	10011
Escambia	0	0	0	626	6654	318	12	203	68	883	555	6	6	1
Flagler	0	0	0	31	312	193	4	4	4	13	6	8	8	2
Franklin	0	0	0	18	19	4	6	20	4	49	24	67	33	0
Gadsden	0	0	0	130	1148	475	18	5	3	60	63	390	106	21
Gilchrist	0	0	0	36	79	202	0	4	3	8	4	1	8	0
Glades	71	0	0	76	121	391	0	0	0	1	0	13	6	0
Gulf	0	0	0	90	252	159	63	31	40	31	40	234	284	246
Hamilton	0	0	0	23	121	7	2	0	1	0	0	0	0	0
Hardee	0	0	0	29	70	24	38	19	21	14	130	119	90	52
Hendry	84	1	0	89	251	500	0	12	4	0	4	62	20	0
Hernando	0	0	0	83	140	97	33	26	7	40	72	51	105	59
Highlands	155	7	0	76	175	99	44	37	91	165	253	105	428	111
Hillsborough	0	0	0	1004	5623	58	148	424	239	1059	875	25	26	48
Holmes	0	0	0	45	104	155	8	35	3	4	2	104	51	7
Indian River	0	0	0	130	664	175	10	35	18	60	17	240	133	12
Jackson	0	0	0	110	691	79	51	213	42	259	93	705	166	188
Jefferson	0	0	0	35	81	40	0	21	1	12	4	30	45	0
Lafayette	0	0	0	31	104	32	2	12	2	18	4	46	17	4
Lake	0	0	0	105	140	42	5	83	6	52	42	107	281	0
Lee	0	0	0	93	929	26	24	213	107	127	247	1005	925	9
Leon	0	0	0	132	2047	5	2	12	18	172	28	2	12	2
Levy	0	0	0	78	254	299	5	25	29	74	32	49	52	110
Liberty	0	0	0	249	331	843	0	11	0	12	1	45	21	0
Madison	0	0	0	37	57	52	2	22	3	12	7	73	92	10
Manatee	0	0	0	184	2158	632	14	118	136	287	605	160	215	180
Marion	0	0	0	326	1703	41	40	78	737	2444	459	2822	757	996
Martin	0	0	0	14	13	27	59	28	5	15	100	62	353	24
Monroe	642	34	32	284	448	398	37	60	53	207	175	159	286	17
Nassau	0	0	0	210	403	71	11	35	8	25	32	62	45	0
Okaloosa	0	0	0	370	3934	3522	21	71	51	270	106	203	226	65
Okeechobee	0	0	0	31	178	12	28	3	2	12	43	17	104	8
Orange	0	0	0	353	853	51	24	336	11	490	480	51	28	0
Osceola	0	0	0	25	25	23	0	0	0	18	21	94	25	73
Palm Beach	2	1	0	532	2204	2292	22	356	111	740	486	375	410	26
Pasco	0	0	0	232	50	409	137	52	72	149	166	316	569	16
Pinellas	9266	294	308	1171	10561	1116	13	205	71	625	387	15	22	28
Polk	0	0	0	783	3345	1440	4	6	25	40	42	25	14	0
Putnam	0	0	0	123	815	765	125	174	176	77	511	467	1305	62
St. Johns	0	0	0	77	339	71	5	40	5	96	17	44	20	3
St. Lucie	0	0	0	286	1206	492	134	53	129	3	241	1239	948	732
Santa Rosa	0	0	0	109	1554	45	1	44	4	167	64	39	255	0
Sarasota	0	2	2	310	2749	19	20	23	76	531	232	10	13	3
Seminole	296	9	4	61	461	23	353	172	359	54	83	2456	1446	158
Sumter	0	0	0	69	70	79	20	29	8	10	45	121	63	0
Suwannee	0	0	0	80	330	600	4	26	11	23	25	86	72	2
Taylor	0	0	0	23	188	11	22	39	12	29	43	129	127	5
Union	0	0	0	48	109	87	0	3	0	11	2	50	0	0
Volusia	0	0	0	530	11600	468	0	0	0	0	0	0	0	0
Wakulla	0	0	0	94	283	333	12	37	21	63	47	88	47	12
Walton	0	0	0	104	935	122	8	34	1	19	8	231	39	0
Washington	0	0	0	73	454	248	0	65	21	2	0	182	396	0

TABLE 26 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, FLORIDA, 1968

COUNTY	K. MISCELLANEOUS											M. NURSING HOMES		
	Morbidity													
	Admissions to Service		Field Visits		Office Visits									
	Under 65 1a	Over 65 1b	Under 65 2a	Over 65 2b	Under 65 3a	Over 65 3b	General Medical Examinations 4	Health Cards Issued 5	Visits in the Interest of Vital Statistics 6	Conferences or Visits in the Interest of Civil Defense 7	Visits in the Interest of Reported Accidents, Poisoning 8	Admitted to Service 1	Visits to Nursing Homes (Field) 2	Nursing Home Conferences (Office) 3
Total 1968	13215	2201	8360	6072	23325	3279	151433	275108	1986	635	4054	387	6354	1532
Alachua	79	2	302	35	10	1	394	2631	0	1	80	4	45	0
Baker	19	3	29	11	17	13	1	150	0	15	4	0	0	0
Bay	60	12	128	17	2	0	7	2484	45	2	35	3	37	0
Bradford	22	2	10	5	24	5	3	281	0	0	0	1	10	2
Brevard	366	18	733	122	37	1	1	7871	15	28	238	6	128	21
Broward	670	5	323	12	951	1	2384	29045	7	1	195	17	298	172
Calhoun	8	1	0	0	29	7	23	163	4	1	0	0	0	0
Charlotte	7	3	11	6	1	1	0	1241	0	17	1	0	0	4
Citrus	27	48	0	0	55	129	63	563	24	1	0	1	9	1
Clay	115	9	125	18	91	10	179	459	1	0	1	1	3	1
Collier	846	26	242	23	1559	40	788	1235	2	17	42	2	9	6
Columbia	6	17	4	31	12	12	5	547	29	1	1	1	8	0
Dade	1444	58	355	157	4883	115	120735	38043	12	95	397	54	1003	92
De Soto	10	3	15	5	5	0	0	406	436	0	0	0	0	0
Dixie	272	2	33	2	365	1	312	370	102	5	0	0	0	0
Duval	126	14	154	21	72	0	1677	12371	0	144	412	26	481	36
Escambia	57	31	83	82	264	46	856	14909	23	10	230	5	70	3
Flagler	79	25	46	15	75	23	2	299	1	0	0	0	0	0
Franklin	29	10	23	65	18	17	19	657	1	0	0	0	0	0
Gadsden	18	6	9	0	16	10	1	621	459	0	0	3	0	3
Gilchrist	262	22	129	40	437	53	18	129	0	8	1	0	0	0
Glades	171	17	164	8	750	9	62	265	5	0	3	0	0	0
Gulf	56	33	4	20	69	66	4	472	156	0	2	0	0	0
Hamilton	21	8	3	2	89	137	0	378	0	0	0	0	0	0
Hardee	2	1	0	0	3	1	1	676	0	0	0	1	4	0
Hendry	339	22	246	45	856	64	19	399	15	0	2	0	0	0
Hernando	9	8	16	17	6	15	118	427	0	0	0	1	2	0
Highlands	68	20	33	60	56	8	260	708	23	0	0	4	22	0
Hillsborough	67	46	124	85	9	6	451	34035	1	0	920	30	770	137
Holmes	31	5	0	0	34	4	5	249	0	0	0	1	3	0
Indian River	3	7	2	11	2	3	61	1508	3	1	4	4	18	3
Jackson	46	0	58	0	16	0	68	1267	13	0	0	0	0	0
Jefferson	10	11	13	130	19	67	93	237	9	4	0	1	47	0
Lafayette	185	69	166	192	445	237	52	35	1	0	0	0	0	0
Lake	3	2	4	3	0	0	0	1568	8	1	11	10	68	0
Lee	650	79	198	527	1185	64	1252	5499	57	4	53	4	42	0
Leon	241	24	454	60	175	4	431	3114	7	7	70	3	21	0
Levy	97	16	64	7	89	19	182	725	0	0	8	2	24	0
Liberty	17	4	2	2	16	2	55	49	63	0	0	0	0	0
Madison	4	2	11	3	8	35	0	206	0	0	0	0	0	0
Manatee	109	34	39	92	112	13	216	5384	51	53	73	12	182	1
Marion	1	4	12	32	0	3	3	2030	50	21	39	0	2	14
Martin	81	6	19	16	177	32	0	679	8	27	21	1	5	0
Monroe	366	28	59	29	489	28	658	1132	23	12	57	0	0	0
Nassau	89	1	97	2	28	1	68	741	39	4	2	0	0	0
Okaloosa	317	5	99	29	378	2	25	2990	43	0	9	0	0	0
Okeechobee	1	0	12	0	0	0	0	286	0	13	0	1	17	0
Orange	140	2	70	2	319	4	273	20406	9	0	162	26	889	182
Osceola	13	0	5	0	23	0	17	1100	0	0	1	1	11	4
Palm Beach	2239	652	560	347	5144	1717	14685	15336	2	0	488	20	423	0
Pasco	359	42	183	51	379	37	43	2595	7	0	6	7	73	10
Pinellas	569	351	1135	2438	580	23	2862	20118	13	30	148	65	660	707
Polk	1154	81	410	129	1319	44	393	13775	6	12	79	20	200	45
Putnam	149	32	25	15	199	33	21	1089	2	4	4	1	1	0
St. Johns	18	5	5	3	18	4	19	1404	8	14	7	2	13	1
St. Lucie	16	0	0	0	17	0	0	1409	0	14	32	3	39	1
Santa Rosa	67	15	95	34	56	14	56	131	0	13	13	0	0	0
Sarasota	198	95	855	399	64	7	123	3721	5	44	122	11	93	80
Seminole	539	4	116	2	1028	8	913	1152	43	0	12	9	80	0
Sumter	63	12	63	16	66	10	2	579	5	4	7	1	5	0
Suwannee	69	25	32	20	77	24	128	458	0	0	0	1	22	0
Taylor	12	1	24	0	6	1	0	464	0	0	12	0	0	0
Union	68	8	3	0	69	8	72	40	28	1	0	0	0	0
Volusia	18	105	124	577	6	37	0	10924	104	4	47	20	507	6
Wakulla	11	1	1	0	15	2	65	140	14	2	0	0	0	0
Walton	2	1	0	0	2	1	55	385	3	0	3	0	0	0
Washington	5	0	1	0	4	0	154	348	1	0	0	1	10	0

TABLE 26 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, FLORIDA, 1968

COUNTY	P. SANITATION											
	Water						Sewage					
	Public Water Systems 1		Private Water Plants 2		Bottled Water Plants 3		Public Sewerage Systems 4		Private Sewerage Systems 5		New Specification Septic Tanks Installed 6	
	Admitted	Visits	Admitted	Visits	Admitted	Visits	Admitted	Visits	Admitted	Visits	Admitted	Visits
Total 1968	2736	18731	7953	14144	54	426	1401	12121	570	1637	23666	37037
Alachua	141	1587	18	33	0	0	84	422	0	0	705	940
Baker	18	92	16	20	5	5	2	6	0	0	19	39
Bay	48	279	216	275	0	0	21	171	3	4	445	458
Bradford	3	22	0	0	0	0	1	14	0	0	92	92
Brevard	139	455	181	320	1	1	39	824	5	25	538	1096
Broward	27	409	170	281	9	35	57	802	58	346	1522	1956
Calhoun	7	76	52	80	0	0	1	8	0	0	51	51
Charlotte	5	42	167	175	0	0	8	68	15	88	648	648
Citrus	4	27	64	143	0	0	4	15	2	8	57	84
Clay	6	162	4	40	0	0	6	43	1	6	333	354
Collier	23	89	20	26	0	0	23	83	1	1	909	1623
Columbia	59	596	88	126	0	0	38	312	10	15	104	140
Dade	352	2306	845	1736	9	108	130	693	107	280	0	0
De Soto	4	46	59	85	0	0	1	1	5	5	53	123
Dixie	21	86	26	57	0	0	1	2	1	2	13	18
Duval	94	520	497	604	1	20	37	857	26	54	786	1163
Escambia	34	505	455	576	0	0	49	472	1	7	1199	3506
Flagler	4	84	0	0	0	0	4	32	0	0	95	204
Franklin	4	123	1	1	0	0	5	120	0	0	10	18
Gadsden	11	192	61	160	0	0	5	59	0	0	157	171
Gilchrist	2	5	13	20	0	0	1	4	0	0	27	39
Glades	13	164	2	6	0	0	5	10	2	3	125	267
Gulf	3	14	96	157	0	0	2	16	0	0	59	59
Hamilton	20	85	12	12	0	0	8	62	0	0	21	22
Hardee	24	157	56	134	0	0	2	16	1	3	59	137
Hendry	9	135	1	39	0	0	2	12	2	3	146	419
Hernando	9	73	1	3	2	2	9	49	0	0	99	151
Highlands	8	19	60	104	4	4	8	15	7	8	308	505
Hillsborough	304	1136	276	589	1	6	68	644	5	21	1370	1408
Holmes	3	31	8	26	0	0	1	12	0	0	40	44
Indian River	1	15	0	0	1	45	2	3	5	5	155	231
Jackson	24	91	71	337	0	0	3	48	0	0	94	107
Jefferson	1	3	1	1	0	0	1	50	2	3	10	18
Lafayette	24	49	8	11	0	0	0	0	9	13	0	0
Lake	41	67	61	82	0	0	0	0	1	1	626	1197
Lee	79	471	2	5	1	2	60	824	25	33	1582	1634
Leon	165	281	124	135	2	5	14	34	0	0	410	463
Levy	19	74	46	85	0	0	1	12	0	0	90	91
Liberty	26	324	0	16	0	0	1	1	0	0	7	12
Madison	5	79	31	58	0	0	2	29	0	0	30	38
Manatee	115	457	845	1013	4	39	73	527	2	8	572	1111
Marion	90	530	120	274	0	0	17	89	10	18	270	370
Martin	29	340	38	152	1	2	26	94	0	0	522	708
Monroe	6	14	6	7	0	0	48	638	2	5	4	16
Nassau	2	2	9	43	0	0	1	6	0	0	64	191
Okaloosa	22	61	31	71	0	0	25	148	8	8	624	722
Okeechobee	4	24	0	0	0	0	6	67	0	0	85	103
Orange	91	1617	12	23	1	16	76	675	26	129	1062	1330
Osceola	10	41	11	30	1	3	8	29	7	21	245	293
Palm Beach	43	407	829	1133	4	44	1	4	3	4	938	1353
Pasco	13	51	30	77	1	1	10	11	0	0	1999	2065
Pinellas	31	965	59	238	2	19	193	1726	30	100	100	575
Polk	51	250	350	607	0	0	59	423	107	279	640	877
Putnam	31	222	101	194	0	0	5	29	5	11	410	1362
St. Johns	10	18	153	153	0	0	5	18	22	32	55	55
St. Lucie	9	194	64	82	1	11	9	149	1	1	252	377
Santa Rosa	9	9	52	52	0	0	2	9	0	0	89	89
Sarasota	70	416	961	2665	1	2	77	361	3	5	1335	3559
Seminole	27	157	123	268	1	18	15	96	2	7	572	666
Sumter	31	394	31	50	0	0	6	7	3	9	62	158
Suwannee	1	10	0	0	0	0	2	5	4	12	30	38
Taylor	30	108	72	108	0	0	2	10	0	0	16	17
Union	4	39	4	26	0	0	1	22	0	0	19	46
Volusia	201	1267	129	176	1	38	24	94	2	2	559	1271
Wakulla	6	55	2	4	0	0	1	3	1	13	5	14
Walton	8	49	89	106	0	0	1	10	0	0	103	103
Washington	8	63	23	34	0	0	2	26	38	39	40	42

TABLE 26 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, FLORIDA, 1968

COUNTY	P. SANITATION													
	Sewage		Miscellaneous											
	New Specification Privies Installed 7		Garbage Disposal Systems 8		Subdivision Analysis 9	Percolation & Soil Log Test 10	Pollution Survey 11		Bathing Area Surveyed 12		Public Swimming Pools 13			
	Admitted	Visits	Admitted	Visits	Number	Number	Admitted	Visits	Admitted	Visits	Admitted	Visits		
Total 1968	1436	1600	629	10558	233	12514	679	5367	307	1215	4973	26782		
Alachua	245	281	31	441	10	723	16	33	10	26	61	745		
Baker	0	0	0	11	0	4	0	0	0	0	0	0		
Bay	0	0	4	5	0	210	1	7	0	0	123	480		
Bradford	0	0	5	215	8	14	5	5	0	0	0	0		
Brevard	2	4	8	69	10	770	17	55	15	80	100	617		
Broward	0	0	15	148	14	4	33	166	0	0	1200	6562		
Calhoun	0	0	3	10	0	0	0	0	0	0	1	6		
Charlotte	0	0	3	52	0	3	1	108	3	49	9	42		
Citrus	0	0	3	22	22	3	2	14	1	10	1	6		
Clay	0	0	3	49	1	721	0	0	0	0	2	10		
Collier	31	103	1	6	16	299	3	33	18	19	45	96		
Columbia	0	0	1	324	0	26	0	0	1	22	18	212		
Dade	0	0	51	239	0	0	258	1581	35	381	1305	7794		
De Soto	0	0	1	11	0	0	0	0	0	0	1	1		
Dixie	0	0	4	6	0	12	1	1	0	0	3	12		
Duval	0	0	39	392	3	2539	30	198	1	7	221	354		
Escambia	0	0	6	3159	4	173	2	3	5	17	53	235		
Flagler	0	0	3	83	0	0	3	20	1	6	3	15		
Franklin	0	0	6	227	0	0	0	0	0	0	0	0		
Gadsden	63	78	15	128	0	7	5	13	0	0	4	6		
Gilchrist	0	0	1	37	0	0	0	0	2	6	1	10		
Glades	0	0	4	10	1	0	2	3	0	0	0	0		
Gulf	0	0	0	0	0	3	0	0	0	0	0	0		
Hamilton	0	0	3	40	0	1	0	0	1	1	5	13		
Hardee	0	0	1	24	0	0	0	0	0	0	2	6		
Hendry	1	6	1	21	4	10	1	32	0	0	2	8		
Hernando	0	0	8	629	0	0	23	54	14	16	7	20		
Highlands	0	0	3	3	0	0	3	14	7	7	6	24		
Hillsborough	0	0	181	1464	3	135	116	2345	2	20	26	136		
Holmes	0	0	0	102	0	126	0	0	1	1	1	12		
Indian River	1	4	2	10	11	250	4	18	1	1	28	90		
Jackson	0	0	3	47	0	169	0	0	1	1	2	2		
Jefferson	0	0	8	27	0	0	0	0	0	0	4	7		
Lafayette	0	0	2	2	0	14	1	7	2	12	1	3		
Lake	0	0	0	0	1	1	2	2	2	2	3	6		
Lee	0	0	0	40	2	0	14	29	0	0	119	537		
Leon	0	0	9	326	0	129	0	0	10	82	56	210		
Levy	1	1	8	32	0	5	2	8	1	2	0	0		
Liberty	0	0	0	0	0	1	1	1	1	1	0	0		
Madison	0	0	6	22	0	1	0	0	0	0	2	15		
Manatee	6	6	2	12	0	20	5	9	1	1	4	35		
Marion	0	0	28	714	10	12	1	1	6	18	56	120		
Martin	0	0	3	31	1	546	1	6	4	13	16	101		
Monroe	0	0	16	142	0	0	7	28	8	16	35	275		
Nassau	0	0	3	49	0	26	5	36	0	0	13	22		
Okaloosa	0	0	8	65	0	278	6	17	1	3	36	70		
Okeechobee	2	4	1	8	0	63	0	0	0	0	2	12		
Orange	0	0	5	129	25	1274	22	49	7	21	96	358		
Osceola	0	0	5	54	1	230	2	3	22	22	10	26		
Palm Beach	0	0	3	15	0	0	2	35	0	0	391	2464		
Pasco	0	0	2	16	0	19	0	0	0	0	1	1		
Pinellas	0	0	7	13	3	2586	15	200	7	67	338	2729		
Polk	14	29	10	82	8	303	26	100	40	128	29	92		
Putnam	0	0	13	200	2	23	1	4	3	14	3	8		
St. Johns	0	0	14	37	0	60	2	3	16	16	47	85		
St. Lucie	2	2	2	11	1	61	3	3	3	3	12	71		
Santa Rosa	0	0	15	70	0	0	3	6	3	3	0	0		
Sarasota	1064	1078	2	3	49	188	22	103	6	28	192	863		
Seminole	0	0	7	53	14	236	0	0	36	58	9	11		
Sumter	0	0	1	3	0	9	0	0	0	0	1	10		
Suwannee	0	0	0	0	0	2	0	0	0	0	3	10		
Taylor	4	4	16	218	0	0	3	3	0	0	15	17		
Union	0	0	8	45	1	1	0	0	0	0	0	0		
Volusia	0	0	8	50	0	144	1	2	5	22	242	1076		
Wakulla	0	0	1	17	1	6	2	2	2	9	0	0		
Walton	0	0	6	35	7	73	3	6	2	4	5	12		
Washington	0	0	1	53	0	1	1	1	0	0	2	22		

TABLE 26 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, FLORIDA, 1968

COUNTY	P. SANITATION											
	Miscellaneous											
	Schools 14		Mobile Home Parks 15		Camps 16		Tourist Courts or Motels 17		Child Care Centers 18		Complaints Investivated 19	
	Admitted	Visits	Admitted	Visits	Admitted	Visits	Admitted	Visits	Admitted	Visits	Admitted	Visits
Total 1968	1757	4189	2300	10616	605	5559	174	439	2047	6251	45785	95979
Alachua	30	142	33	351	15	41	44	47	24	155	478	918
Baker	7	81	5	39	0	0	0	0	0	0	26	31
Bay	28	99	66	208	2	8	22	92	0	0	197	378
Bradford	8	17	0	0	4	4	0	0	1	1	47	174
Brevard	70	110	67	139	10	45	2	2	38	86	1214	2198
Broward	145	220	106	253	20	450	0	0	265	879	4585	8452
Calhoun	4	22	2	11	0	0	0	0	0	0	11	14
Charlotte	8	28	28	135	2	15	5	12	1	3	361	606
Citrus	2	16	7	30	6	19	3	3	2	3	49	89
Clay	10	24	15	27	6	8	3	15	2	3	189	286
Collier	16	20	19	35	84	217	0	0	8	13	276	580
Columbia	1	5	6	26	1	3	1	2	5	5	85	165
Dade	204	316	66	205	33	1327	0	0	238	439	13991	29933
De Soto	5	10	3	3	0	0	0	0	1	1	78	162
Dixie	4	17	0	0	1	2	0	0	0	0	27	39
Duval	155	261	101	505	3	19	0	0	436	738	2800	6302
Escambia	80	103	120	291	5	10	0	0	66	287	2824	5791
Flagler	4	14	13	102	7	17	4	6	1	1	81	176
Franklin	4	46	5	92	0	0	0	0	0	0	61	88
Gadsden	17	169	2	35	2	19	7	48	3	34	155	171
Gilchrist	3	6	0	0	2	2	0	0	0	0	6	9
Glades	2	20	3	11	7	48	2	2	2	25	37	92
Gulf	8	26	9	38	0	0	0	0	1	1	40	76
Hamilton	6	6	5	2	0	0	0	0	0	0	17	21
Hardee	1	8	5	21	4	6	1	1	2	3	36	62
Hendry	6	16	18	91	11	206	1	3	2	25	61	299
Hernando	3	4	4	22	2	14	1	1	0	0	41	112
Highlands	1	2	1	12	10	14	0	0	1	3	50	158
Hillsborough	103	244	225	1520	48	457	0	0	251	1283	3114	6109
Holmes	6	14	1	9	0	0	0	0	0	0	18	21
Indian River	9	11	16	82	1	22	1	2	0	0	106	310
Jackson	1	5	6	12	1	1	3	6	0	0	7	25
Jefferson	0	0	2	2	0	0	1	3	0	0	23	41
Lafayette	1	4	0	0	1	1	0	0	0	0	10	13
Lake	9	9	18	41	10	37	3	3	27	78	99	162
Lee	33	65	82	537	6	276	2	14	47	163	444	630
Leon	28	55	65	110	2	4	0	0	56	166	598	1232
Levy	8	9	1	1	2	2	0	0	0	0	27	27
Liberty	6	6	0	0	2	27	1	3	0	0	3	7
Madison	4	13	2	2	0	0	3	4	0	0	12	52
Manatee	5	105	76	189	15	142	4	9	25	113	1205	3176
Marion	33	195	12	26	7	19	8	12	33	45	428	697
Martin	3	3	25	103	2	7	0	0	17	35	181	492
Monroe	13	45	87	147	6	10	12	21	0	0	262	536
Nassau	13	80	1	21	1	3	1	2	0	0	38	117
Okaloosa	22	34	83	210	8	14	0	0	1	1	461	998
Okeechobee	4	8	11	39	0	0	0	0	1	2	42	70
Orange	98	400	130	829	16	140	2	16	70	521	1633	5277
Osceola	7	24	13	73	7	46	4	12	3	13	44	187
Palm Beach	65	80	40	153	115	1342	0	0	153	293	2300	4363
Pasco	1	3	26	98	9	57	5	9	1	1	178	433
Pinellas	136	309	296	2312	7	33	0	0	37	76	3318	6701
Polk	120	254	90	508	41	152	11	24	121	436	776	1603
Putnam	10	41	34	281	19	94	0	0	1	1	184	392
St. Johns	6	25	20	39	7	19	0	0	2	2	179	208
St. Lucie	6	6	30	155	6	67	0	0	11	44	150	222
Santa Rosa	9	13	8	23	1	1	0	0	0	0	37	44
Sarasota	26	29	69	119	2	15	0	0	19	105	984	2441
Seminole	29	67	19	24	5	12	1	1	25	53	441	731
Sumter	7	36	5	9	6	13	6	14	0	0	19	56
Suwannee	3	9	5	38	1	2	3	26	7	30	36	55
Taylor	9	25	6	7	0	0	0	0	8	12	32	48
Union	0	0	2	12	0	0	0	0	0	0	26	28
Volusia	71	107	76	171	10	32	3	3	30	69	504	1021
Wakulla	2	9	2	13	2	12	1	5	1	2	16	30
Walton	12	13	3	12	2	6	0	0	0	0	5	12
Washington	7	26	4	5	0	0	3	16	1	2	22	30

TABLE 26 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, FLORIDA, 1968

COUNTY	P. SANITATION												
	Miscellaneous					Protection of Food and Milk							
	Nuisances Corrected 20	Plumbing 21		Rabies Animal Bites 22		Eating and Drinking Establishments 23		Food Processing Plants 24		Abattoirs 25		Shellfish and Crustacea 26	
	Number	Admitted	Visits	Admitted	Visits	Admitted	Visits	Admitted	Visits	Admitted	Visits	Admitted	Visits
Total 1968	31522	3223	9921	31339	89924	21501	111188	971	6649	164	1047	175	1163
Alachua	285	9	9	596	628	420	1817	26	132	5	19	0	0
Baker	8	13	13	17	31	22	181	0	0	0	0	0	0
Bay	170	0	0	137	311	390	1412	10	47	0	0	13	156
Bradford	152	0	0	62	64	38	205	0	0	0	0	0	0
Brevard	794	1	6	1209	2485	704	2666	19	55	1	1	18	212
Broward	2653	0	0	3163	7362	1952	4178	34	100	0	0	0	0
Calhoun	9	0	0	4	4	21	189	1	1	0	0	0	0
Charlotte	219	0	0	63	130	89	328	5	21	0	0	6	28
Citrus	6	2	2	7	18	39	131	2	2	0	0	1	3
Clay	120	0	0	55	130	131	487	5	6	0	0	0	0
Collier	277	0	0	224	1188	162	338	16	52	1	1	0	0
Columbia	44	0	0	124	255	131	935	3	15	3	4	0	0
Dade	8847	1	2	7367	25582	3998	22942	258	2473	44	205	4	48
De Soto	49	1	3	44	87	25	42	4	8	3	3	0	0
Dixie	18	0	0	7	8	33	80	0	0	0	0	11	46
Duval	2739	15	15	2102	2234	930	3811	46	457	1	1	2	14
Escambia	2158	3136	9789	1603	5997	715	4506	26	259	2	13	13	67
Flagler	66	2	5	30	87	67	331	0	0	0	0	1	1
Franklin	55	0	0	11	30	17	198	3	49	0	0	0	0
Gadsden	134	0	0	15	23	23	559	2	15	1	23	1	2
Gilchrist	5	0	0	6	6	3	101	0	0	0	0	0	0
Glades	11	7	7	26	69	21	71	0	0	1	1	0	0
Gulf	24	0	0	39	82	42	331	1	9	0	0	1	2
Hamilton	1	0	0	20	38	35	136	0	0	2	2	0	0
Hardee	5	1	4	43	54	21	107	1	4	1	9	0	0
Hendry	63	0	0	28	69	35	102	2	2	1	1	0	0
Hernando	24	1	1	6	15	35	63	3	16	0	0	0	0
Highlands	39	0	0	39	77	56	160	0	0	0	0	0	0
Hillsborough	2951	3	5	3522	17540	1900	18608	70	682	38	366	2	23
Holmes	15	0	0	4	20	37	257	0	0	0	0	0	0
Indian River	25	0	0	143	427	64	299	4	13	0	0	3	17
Jackson	1	0	0	25	77	62	405	5	11	11	12	0	0
Jefferson	8	2	2	15	25	13	30	0	0	0	0	0	0
Lafayette	6	0	0	1	1	7	18	0	0	0	0	0	0
Lake	38	0	0	14	17	155	524	1	1	0	0	0	0
Lee	377	0	0	378	870	511	1830	23	118	1	3	4	43
Leon	267	0	0	488	1351	351	1603	11	23	3	15	0	0
Levy	21	0	0	61	149	38	46	0	0	0	0	20	88
Liberty	1	0	0	1	4	10	88	0	0	0	0	0	0
Madison	3	0	0	9	21	39	112	0	0	0	0	0	0
Manatee	983	0	0	610	1293	307	966	30	135	1	5	1	7
Marion	213	0	0	209	496	239	636	4	8	2	4	2	2
Martin	105	1	1	78	137	119	529	3	13	1	1	2	6
Monroe	132	0	0	199	494	179	476	3	8	0	0	0	0
Nassau	7	0	0	28	120	66	278	1	3	0	0	1	10
Okaloosa	359	0	0	665	1663	279	920	7	15	2	11	1	2
Okeechobee	29	0	0	33	69	75	231	2	3	0	0	0	0
Orange	1154	1	1	1683	3550	860	8068	67	585	26	239	2	10
Osceola	31	1	4	51	128	103	409	3	13	0	0	0	0
Palm Beach	1075	0	0	631	1611	1148	3849	30	48	0	0	0	0
Pasco	146	0	0	85	166	122	276	5	6	0	0	1	4
Pinellas	2716	0	0	1626	3399	1681	10318	73	452	0	0	4	21
Polk	481	0	0	1600	4129	680	3458	39	269	2	28	0	0
Putnam	69	0	0	50	118	133	752	1	3	1	5	2	15
St. Johns	156	0	0	112	185	230	1427	13	67	1	1	5	87
St. Lucie	118	0	0	184	500	166	1579	8	80	1	9	0	0
Santa Rosa	17	0	0	125	168	59	108	0	0	1	1	16	41
Sarasota	571	0	0	755	1504	398	1031	46	115	0	0	5	11
Seminole	156	0	0	256	632	186	729	10	33	0	0	0	0
Sumter	8	0	0	28	79	37	162	0	0	1	7	0	0
Suwannee	14	0	0	2	12	68	751	3	18	1	39	0	0
Taylor	18	1	1	39	76	44	86	1	2	0	0	1	7
Union	16	0	0	3	6	22	113	0	0	1	1	0	0
Volusia	238	25	51	497	1667	825	3097	39	200	0	0	16	37
Wakulla	3	0	0	6	15	13	52	0	0	1	1	11	131
Walton	6	0	0	48	102	71	427	0	0	1	8	5	22
Washington	13	0	0	28	39	49	233	2	2	2	8	0	0

TABLE 26 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, FLORIDA, 1968

COUNTY	P. SANITATION											
	Protection of Food and Milk											
	Grocery and Meat Markets 27		Other Food Establishments 28		Food Handlers Trained 29	Dairy Farms 30		Milk and Milk Products Plants 31		Cows Bangs Tested 32	Cows Tuberculin Tested 33	Dairy Farms Under Mastitis Control Program 34
	Admitted	Visits	Admitted	Visits	Number	Admitted	Visits	Admitted	Visits	Number	Number	Number
Total 1968	7928	33667	1078	7485	4573	536	8558	465	6284	3373	64047	126
Alachua	206	869	54	145	48	10	70	3	20	0	0	0
Baker	32	148	0	0	112	3	21	0	0	0	0	0
Bay	126	301	4	11	0	2	13	2	10	0	0	0
Bradford	25	165	0	0	0	1	3	1	3	0	0	0
Brevard	215	787	24	72	201	5	10	3	12	0	0	0
Broward	664	1299	35	64	357	0	0	5	220	0	0	0
Calhoun	12	58	0	0	0	7	148	0	0	0	0	0
Charlotte	35	147	0	0	0	0	0	0	0	0	0	0
Citrus	11	49	0	0	0	1	9	0	0	0	0	0
Clay	77	261	0	0	0	7	82	0	0	0	0	0
Collier	24	34	29	116	0	0	0	0	0	0	0	0
Columbia	101	229	2	2	15	0	0	0	0	0	0	0
Dade	1160	5719	210	1913	2517	39	479	248	2495	0	0	0
De Soto	13	23	11	20	0	1	21	0	0	0	0	0
Dixie	1	1	3	3	0	0	0	0	0	0	0	0
Duval	637	2353	17	369	0	1	2	6	14	0	0	0
Escambia	186	1142	29	173	272	30	1117	5	109	0	109	0
Flagler	18	125	0	0	0	1	22	0	0	0	0	0
Franklin	0	0	0	0	0	0	0	0	0	0	0	0
Gadsden	5	10	0	0	0	3	88	2	12	0	0	0
Gilchrist	4	4	0	0	0	2	3	0	0	0	0	0
Glades	6	25	1	1	19	5	90	0	0	0	664	0
Gulf	47	279	0	0	0	0	0	0	0	0	0	0
Hamilton	0	0	0	0	0	0	0	0	0	0	0	0
Hardee	5	30	2	3	0	5	71	1	20	0	852	0
Hendry	8	31	1	1	0	2	19	0	0	0	0	0
Hernando	11	35	0	0	0	2	23	0	0	0	1392	0
Highlands	9	47	0	0	9	8	32	1	3	0	0	0
Hillsborough	850	8498	344	3471	189	66	1709	9	725	815	14407	66
Holmes	26	201	2	4	0	13	125	0	0	0	581	0
Indian River	23	80	1	1	0	3	7	1	8	0	0	0
Jackson	1	1	0	0	0	13	166	1	30	0	0	0
Jefferson	30	41	0	0	0	5	122	0	0	1	0	0
Lafayette	0	0	0	0	0	12	127	0	0	0	1136	11
Lake	43	92	0	0	0	13	122	0	0	0	0	0
Lee	179	458	8	39	0	4	63	2	22	0	0	0
Leon	178	368	0	0	0	7	82	4	124	0	207	0
Levy	0	0	0	0	0	0	0	0	0	0	0	0
Liberty	0	0	0	0	0	0	0	0	0	0	0	0
Madison	4	23	0	0	0	3	35	1	2	0	0	0
Manatee	69	207	1	14	72	24	912	1	63	0	1939	18
Marion	16	36	1	2	0	13	237	0	0	0	402	0
Martin	29	110	0	0	0	9	86	1	7	0	4187	0
Monroe	85	96	2	6	0	0	0	0	0	0	0	0
Nassau	3	19	0	0	0	8	27	0	0	0	0	0
Okaloosa	80	344	1	1	0	0	0	0	0	0	0	0
Okeechobee	22	73	0	0	0	28	299	1	10	1233	15066	0
Orange	368	2717	22	172	3	18	76	11	123	0	0	0
Osceola	79	238	1	4	0	16	197	0	0	3	0	0
Palm Beach	426	1459	8	15	162	23	397	42	406	275	17031	23
Pasco	18	28	0	0	0	20	57	0	0	0	0	0
Pinellas	690	3828	186	555	465	8	134	98	1450	0	1977	8
Polk	372	1489	36	133	132	29	314	4	79	753	2989	0
Putnam	51	417	1	6	0	3	62	0	0	0	0	0
St. Johns	44	373	2	2	0	1	11	0	0	0	0	0
St. Lucie	63	669	1	9	0	4	43	2	32	275	697	0
Santa Rosa	5	7	0	0	0	16	72	0	0	0	0	0
Sarasota	107	182	1	7	0	3	81	1	19	0	0	0
Seminole	73	147	0	0	0	6	42	0	0	0	26	0
Sumter	14	72	2	2	0	6	88	0	0	0	0	0
Suwannee	1	2	1	2	0	3	36	1	12	18	34	0
Taylor	8	14	1	3	0	0	0	0	0	0	0	0
Union	10	102	0	0	0	2	44	0	0	0	0	0
Volusia	231	507	32	135	0	8	251	8	254	0	0	0
Wakulla	42	45	1	1	0	1	1	0	0	0	0	0
Walton	25	159	1	8	0	5	48	0	0	0	0	0
Washington	25	156	0	0	0	8	162	0	0	0	361	0

TABLE 26 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, FLORIDA, 1968

COUNTY	P. SANITATION				V. HEALTH EDUCATION								X-LAB
	Private Premises 35		Public Premises 36										
	Admitted	Visits	Admitted	Visits	Meetings Attended Spectator 1	Meetings Attended Participant 2	Talks Made 3	Conferences 4	Programs Using Audo-Visual Aids 5	Radio and TV Programs, Participant 6	News Articles, Preparation, and/or Publication 7	Exhibits Prepared and/or Set Up 8	Specimens Examined 1-30
Total 1968	50908	92355	17507	58683	12154	10357	9548	26396	6113	293	1395	585	1043238
Alachua	626	1090	124	3667	234	59	87	1072	63	0	9	3	17214
Baker	0	0	3	3	17	7	7	3	35	0	0	0	1643
Bay	787	1058	13	30	80	373	101	134	19	0	10	11	10435
Bradford	0	0	0	0	221	94	47	83	28	0	11	1	2929
Brevard	461	1169	1134	3136	657	386	113	602	99	4	22	3	17512
Broward	763	1306	149	773	566	365	694	1712	294	26	3	76	99181
Calhoun	60	70	18	47	9	31	6	49	40	3	1	0	2422
Charlotte	33	76	48	301	55	90	12	70	8	1	26	0	7417
Citrus	8	47	2	18	22	32	13	40	4	1	2	0	1333
Clay	9	72	12	131	122	181	94	876	106	11	1	53	4218
Collier	1111	1235	136	195	208	86	53	131	65	2	101	2	7969
Columbia	338	718	138	215	57	18	14	87	7	0	7	7	5355
Dade	23249	38811	9041	23056	1006	1806	1564	3631	583	39	153	79	215508
De Soto	901	944	3	110	19	37	29	218	93	2	3	0	1731
Dixie	9	12	14	66	18	13	5	13	3	0	6	0	2464
Duval	688	2472	361	4156	685	520	116	1083	90	0	1	0	31928
Escambia	2717	2717	1608	1608	372	339	313	308	206	8	72	8	42182
Flagler	106	129	33	100	7	32	1	42	0	0	16	0	1405
Franklin	21	66	26	159	6	6	1	40	0	0	3	1	1014
Gadsden	104	128	26	60	50	82	22	295	99	1	14	4	7435
Gilchrist	28	166	4	10	19	16	10	22	4	0	6	0	1177
Glades	15	57	8	21	20	26	12	483	10	0	10	10	1316
Gulf	103	144	49	136	1	1	1	134	0	0	1	0	1582
Hamilton	46	60	31	66	9	10	7	48	7	0	2	7	1836
Hardee	19	26	13	35	5	52	3	124	4	1	31	2	2451
Hendry	15	248	2	45	39	41	20	438	10	0	1	1	3890
Hernando	161	233	2	17	78	43	52	143	12	3	0	0	1849
Highlands	25	97	9	85	58	87	20	102	8	3	6	4	1736
Hillsborough	3722	12020	408	2683	1441	1384	1150	859	650	16	64	65	101836
Holmes	42	56	20	25	55	47	12	75	49	8	4	0	3279
Indian River	52	385	36	357	41	71	24	474	4	3	15	4	5943
Jackson	66	140	10	26	83	47	21	169	11	0	5	4	7368
Jefferson	76	156	47	64	23	11	21	109	3	0	3	0	5634
Lafayette	5	9	5	25	12	6	7	12	3	0	0	7	609
Lake	686	899	96	242	39	20	36	14	4	0	0	1	3071
Lee	37	890	64	295	467	111	50	589	22	6	9	0	18907
Leon	1437	2894	181	964	239	196	453	356	71	3	33	7	22138
Levy	113	247	19	93	20	89	39	28	24	0	3	1	3892
Liberty	3	13	1	5	4	1	0	20	0	0	0	0	1275
Madison	12	14	1	2	7	23	8	26	0	1	3	0	1820
Manatee	120	439	22	115	236	134	233	354	647	2	32	4	11889
Marion	85	166	24	223	184	145	61	408	56	1	10	3	16573
Martin	559	694	123	567	72	110	15	24	7	0	0	0	2305
Monroe	175	215	70	128	48	96	284	639	78	0	40	1	4220
Nassau	157	251	31	52	30	45	5	278	5	1	11	31	4614
Okaloosa	425	576	146	851	41	119	42	1332	1	0	0	9	9512
Okeechobee	58	67	96	306	23	13	0	4	0	0	0	0	1297
Orange	403	2418	359	3727	667	414	766	689	300	29	25	12	63638
Osceola	214	483	94	684	25	27	1	105	0	0	6	0	3653
Palm Beach	1868	4538	655	2138	922	381	352	1757	176	1	35	5	58370
Pasco	43	49	50	126	94	66	116	37	475	0	2	40	7156
Pinellas	4760	6267	474	1424	993	618	1180	1404	815	8	101	52	77932
Polk	324	527	108	385	268	238	440	1235	355	10	45	25	34522
Putnam	295	431	73	209	106	23	27	149	12	0	14	2	2989
St. Johns	59	95	4	22	44	64	20	35	20	1	13	0	6509
St. Lucie	741	1085	204	1531	183	117	35	129	0	1	3	0	4669
Santa Rosa	57	61	24	33	231	62	41	528	26	1	47	2	3346
Sarasota	785	1571	278	1251	236	299	269	941	163	4	58	24	16556
Seminole	379	458	52	198	190	137	199	406	158	24	68	5	7066
Sumter	50	105	4	21	16	21	1	3	5	0	1	0	3127
Suwannee	1	3	3	18	52	60	47	82	18	4	3	3	2721
Taylor	72	100	17	32	20	7	11	14	12	0	2	0	2074
Union	31	88	20	78	30	13	6	3	3	0	0	0	810
Volusia	307	427	625	1400	304	232	138	799	32	61	196	4	16529
Wakulla	45	111	10	34	32	7	5	202	7	3	0	0	2498
Walton	189	195	22	55	33	59	15	114	4	0	25	2	3460
Washington	52	61	24	48	3	11	1	11	0	0	1	0	2299

BUREAU OF MATERNAL AND CHILD HEALTH

E. HENRY KING, M.D., M.P.H.
Director (through June)
R. W. McCOMAS, M.D., M.P.H.
Acting Director (July)
A. F. CARAWAY, M.D.
Acting Director (August-December)

The year of 1968 was one of stock taking, program planning, and growth for the Maternal and Child Health (MCH) program.

The MCH state plan established a guide for program development and achievement through annual goals to be attained during the next five years. A review of activities for the year against these goals makes it apparent that the program is moving at an accelerated pace.

Growth in the quality and quantity of the basic maternity and pediatric services is noteworthy. Family planning showed remarkable growth through the addition of many new day and night clinics. Services were promoted and financially supported by the bureau, with funds for clinicians and nurses' fees, drugs, supplies, diagnostic tests, and other necessary costs. This enabled the County Health Departments (CHD) to develop new services or to extend them to more persons, especially the disadvantaged population sector.

MATERNAL AND CHILD HEALTH

Prenatal, postpartum, and infant and child care services were intensified through continued efforts on the part of local CHDs. Stimulus for additional effort came, in many instances, from consultation and assistance provided by the bureau's obstetric and pediatric consultants. Assistance included a review of current program adequacies and procurement of space, equipment, and personnel. Interpretation of the philosophy, objectives, and needs of the MCH program was provided clinicians and various medical organizations to increase their understanding of the program, thereby increasing their active support.

The chief objective of the obstetric program was to bring maternity patients under early care within a comprehensive program of prenatal, postpartum and interconceptional services, including family planning and nutritional guidance to reduce maternal morbidity and infant mortality.

During the year an intensive investigation was begun into the causes of neonatal and infant deaths in Florida. It was determined that 90 per cent of both white and non-white neonatal deaths occurred within the first six days. The majority of these deaths were due to/or associated with immaturity. Although expanded efforts in family planning alone should effect a reduction in premature births and resulting deaths, attention was directed, statewide, to programs for improved care of the immature infant both in the hospital and after discharge. Since infections and accidents were major causes of infant deaths after the neonatal period, efforts were intensified to educate parents to prevent accidents, to recognize early signs of illness, and to seek medical attention promptly.

In the pediatric sphere additional emphasis was placed on the need for at least six clinic visits in the first year, and not less than two during the second year. The needs of the child between ages 25 months and six years, when many receive little care except on an emergency basis, came under attention. The development of clinics concerned with the special needs of those between ages 13 and 17 years, particularly in major centers of population, was encouraged. The pediatric consultant cooperated with the Division of Nursing and the State Department of Education in guiding the development of improved school health services, in accordance with the new School Accreditation Standards. Stress was placed on the benefits which accrue to student and faculty when public health nurses extend their services to the schools.

FAMILY PLANNING PROGRAM

Family Planning continues to be the fastest growing program of preventive medicine. In 1968, 43,682 indigent women were provided childspacing services by CHDs, a 37 per cent increase over the number served during 1967. Of the number served, 18,437 or 42 per cent were women readmitted to service from 1967 and 25,245 or 58 per cent were those admitted for the first time. Of the women served, 66 per cent were provided oral contraceptives, 24 per cent were provided intrauterine devices and 10 per cent were provided with other contraceptives, primarily foams, and jellies. A few were fitted with diaphragms.

During the year quarterly statistical reports were released stating the number of potential contraceptors in each county as determined by the Dryfoos-Polgar Formula and the per cent of this target group which was being served by the Family Planning Program of each county. Of the 219,084 potential contraceptors in Florida, 19.9 per cent were served during 1968 in comparison to 15.4 per cent in 1967. Through these quarterly reports each county was able to measure its accomplishment and compare its effort with other comparable counties.

An analysis of obstetrical deliveries by school-age children revealed that an estimated four to five thousand indigent children leave school pregnant each year in Florida-most of them permanently. This problem was presented to the health officers and school authorities of Florida's larger counties. They were urged to establish and operate jointly schools for the continuing education and care of the pregnant school child. Such schools were established in Dade, Palm Beach and Sarasota counties. Health and educational authorities of several additional counties initiated studies which hopefully will lead to the establishment of similar schools. This effort received the support of the Episcopal Diocese of South Florida.

NUTRITION SERVICES

A major part of nutritionist services through CHD programs, schools, schools of nursing, professional groups and other community agencies related to maternal and child health.

During 1968 diet counseling and nutrition consultation for normal and therapeutic diets was given for mothers and children in 44 counties by the Division of Nutrition and nutritionists employed by projects or CHDs. The dietary component of patient care was expected to contribute to decreased perinatal mortality, maternal mortality, prematurity and mental retardation through improved patient health status. However, more time is needed to evaluate, fully, the effect of nutrition services.

Plans were developed for a nutrition status study, to be implemented in 1969, intended to identify nutritional needs and problems in Florida.

Specific MCH services included:

Diet counseling and nutrition consultation to infants and children with phenylketonuria who received Lofenalac;

Instruction for individuals and families in use of donated foods;

Planning the nutrition component of health education programs for pregnant school girls, and consultation and/or direct teaching;

Consultation services to day care centers and children's homes;

Participation in a joint evaluation of food service and nutrition education in year round Head Start centers;

Provision of direct nutrition services through youth groups, teacher orientation, science fair projects, and other such groups. 3018 school children received direct nutrition services, a 60 per cent increase over estimated services in 1967;

Participation in six teacher project orientation centers, and in 31 counties participating in teacher projects; and

Provision of group teaching, individual diet counseling and consultation to medical and nursing staffs of the diabetic camp.

Materials developed included a pamphlet for use in diet counseling with prenatal patients.

Nutrition consultation was provided to the special demonstration projects funded by the Children's Bureau for Maternity and Infant Care and for Children and Youth.

In 1968, a total of 12,437 mothers and children received direct nutrition services, a seven per cent increase over the estimated services in 1967.

SPECIAL CHILDREN'S BUREAU MATERNAL AND CHILD HEALTH PROJECTS

Florida's five Maternity and Infant Care (MIC) projects with a combined budget of $2,893,500 in Children's Bureau funds continue to grow. The major objective of these projects is to identify the more vulnerable patients early in pregnancy, and to provide care for them in order to reduce complications of pregnancy and premature deliveries which often produce infants especially susceptible to brain damage, neurologic disability, and

mental retardation. These programs are designed to demonstrate that high quality care can be furnished mothers and children who are unable to obtain private care for reasons beyond their control.

These comprehensive programs include the usual clinic services, social case work, direct nutritional services, dental care, day care, homemaker services, transportation, hospital care, and expert medical consultation and treatment. MIC projects serve North Broward, Dade, Orange, and Palm Beach counties. The North Central Florida project serves Alachua, Baker, Bradford, Clay, Columbia, Dixie, Gilchrist, Hamilton, Lafayette, Levy, Marion, Suwannee, and Union counties.

The Dade County Children and Youth (C&Y) project provides a similar program of intensive high quality services for pre-school children. It is anticipated that these projects will serve as models for a full range of family health services.

MIGRANT HEALTH PROJECT

This was the sixth year of operation of the State Migrant Health Project established by a U.S. Public Health Service Grant, first awarded in 1962. The project provided family medical, dental and nutritional services in 13 counties with heavy concentration of agricultural migratory workers. As part of the design, sanitarians are assigned to work for needed improvement in the housing and environmental conditions for these people. During 1968 the provision to pay for emergency hospitalization was continued. Similar, but separate grants provide for projects in Dade and Palm Beach Counties. The combined budgets of the three projects total $1,039,356.

MENTAL RETARDATION

The Children's Bureau continued to provide funds to operate the Dade County Developmental Evaluation Clinic and Tampa Diagnostic and Evaluation Clinic. Wider geographic distribution of such centers is needed. It became apparent that arrangements must be made to provide transportation and lodging for children and parents living at a distance from such centers, when cost otherwise precludes their obtaining needed evaluation and counseling. The pediatric consultant depends upon the medical directors of these unique facilities for consultation and advice on the development and improvement of pediatric programs directed at the prevention and early recognition of mental retardation.

Liaison was maintained with the State Division of Mental Retardation, which is responsible for the operation of the six Sunland Training Centers. A State Board of Health (SBH) nursing consultant supported by bureau funds continued to be stationed at the center in Gainesville. For a number of years this nurse has been responsible for a series of regularly scheduled seminars held at various Sunland Centers for orientation and education of community workers. Public health nurses (PHNs) at state and county level are encouraged to attend one of these seminars as part of their general orientation. Increased emphasis upon home and community care, rather than institutionalization, placed increased demands upon them for long term follow-up of the mentally retarded.

A state law passed in 1965 made it the responsibility of the SBH to promote testing of all infants for phenylketonuria (PKU) and to maintain records. The law applies to other inborn errors of metabolism as general infant screening becomes feasible. During 1968 the State Health Officer appointed a Technical Advisory Committee for Inborn Errors of Metabolism. The bureau looks to it for guidance in the further development of the program in accordance with expanding insight into problems of diagnosis and long term follow-up. The 1968 state roster included 96 known cases of PKU. Of these, 42 were institutionalized; ages ranged from two to five years. An additional 54 cases, living at home, ranged in age from less than one year to 14 years. Twelve families are known in which more than one child has PKU. The Division of Nutrition, in cooperation with this bureau, distributed Lofenalac to 43 children under dietary treatment for PKU during 1968. SBH nutritionists provided diet counseling, upon the request of attending physicians, to the majority of these children.

During 1968, the bureau added a Hearing Screening Program. The objectives of this program are to encourage CHDs to expand their hearing screening program, with emphasis on the rural counties, and to persuade the counties that do no screening to begin a countywide screening program for hearing defects.

Bureau services to the CHDs in this program include: Training of PHNs and volunteers in screening for hearing defects and in care and use of audiometers. Development of a "loan closet" for conventional audiometers, supervised by the Hearing Screening Consultant, significantly strengthened the hearing screening program for school age children. Evaluation of a verbal auditory screening technique was undertaken among preschool children in one county with gratifying results. This program is expected to expand rapidly.

POSTGRADUATE OBSTETRIC-PEDIATRIC SEMINAR

Physicians and nurses from the six southeastern states attended the 18th annual seminar in Daytona Beach, Florida, in August. This continues to be an outstanding professional educational event for those who are concerned with the care of mothers and children. Speakers who are well known in their respective fields presented papers of interest to pediatricians, obstetricians, general practitioners and those in public health. Table below indicates attendance at the 1968 seminar.

TABLE 27

POSTGRADUATE OBSTETRIC-PEDIATRIC SEMINAR REGISTRATION, BY STATE, 1968

	Doctors	Nurses	Other	Total
Alabama	16	5	0	21
Florida	107	33	7	147
Georgia	64	4	0	68
Mississippi	7	0	0	7
South Carolina	22	1	0	23
Tennessee	23	2	1	26
Other States	7	0	1	8
TOTAL	246	45	9	300

COOPERATION WITH OTHER AGENCIES

This bureau developed a closer relationship with other State Agencies and organizations in the statewide service program for mothers and children.

TABLE 28
NUMBER OF PERSONS RECEIVING CERTAIN MATERNAL OR CHILD HEALTH SERVICES COMPARED WITH ESTIMATE OF INDIGENT PERSONS NEEDING SERVICES, BY TYPE OF SERVICE, BY COUNTY FLORIDA, 1968

COUNTY	Estimated Births in Indigent Families	Child Medical Service		Maternal Medical Service		Maternity Nursing Service		Post Partum Medical Examinations		Family Planning Services		
		New Admissions	Ratio	New Admissions	Ratio	Total Admissions	Ratio	New Admissions	Ratio	Estimate of Eligible Women	Total Served	Per Cent Served
Total 1968	32,182	15,473	48.1	13,638	42.4	25,074	77.9	10,256	31.9	219,084	43,682	19.9
Alachua	693	305	44.0	150	21.6	636	91.8	138	19.9	3,825	628	16.4
Baker	95	0	0.0	18	18.9	37	38.9	0	0.0	463	180	38.9
Bay	453	84	18.5	121	26.7	158	34.9	50	11.0	2,560	181	7.1
Bradford	108	114	105.6	113	104.6	174	161.1	142	131.5	648	256	39.5
Brevard	860	170	19.8	373	43.4	613	71.3	115	13.4	5,184	957	18.5
Broward	2,181	1,092	50.1	1,239	56.8	1,783	81.8	783	35.9	17,348	3,096	17.8
Calhoun	88	0	0.0	11	12.5	18	20.5	1	1.1	480	110	22.9
Charlotte	69	0	0.0	0	0.0	2	2.9	0	0.0	444	31	7.0
Citrus	87	5	5.7	2	2.3	1	1.1	1	1.1	588	41	7.0
Clay	212	95	44.8	78	36.8	114	53.8	49	23.1	893	177	19.9
Collier	190	62	32.6	201	105.8	234	123.2	95	50.0	1,052	413	39.3
Columbia	228	122	53.5	139	61.0	158	69.3	118	51.8	1,300	185	14.2
Dade	4,475	4,430	99.0	3,717	83.1	6,472	144.6	2,499	55.8	38,961	7,292	18.7
De Soto	101	0	0.0	0	0.0	11	10.9	0	0.0	626	75	12.0
Dixie	60	105	175.0	66	110.0	91	151.7	40	66.7	244	147	60.2
Duval	2,509	926	36.9	72	2.9	1,960	78.1	1,550	61.8	16,237	4,645	28.6
Escambia	1,097	564	51.4	32	2.9	306	27.9	29	2.6	5,924	1,425	24.1
Flagler	45	17	37.8	30	66.7	58	128.9	22	48.9	336	42	12.5
Franklin	86	5	5.8	17	19.8	26	30.2	4	4.7	413	66	16.0
Gadsden	491	308	62.7	282	57.4	704	143.0	6	1.2	2,979	1,139	38.2
Gilchrist	36	14	38.9	11	30.6	30	83.3	12	33.3	224	22	9.8
Glades	26	0	0.0	32	123.1	46	176.9	1	3.8	184	86	46.7
Gulf	80	3	3.8	7	8.8	29	36.2	5	6.2	376	234	62.2
Hamilton	106	29	27.4	28	26.4	99	93.4	33	31.1	516	101	19.6
Hardee	137	19	13.9	32	23.4	41	29.9	2	1.5	664	90	13.6
Hendry	96	17	17.7	139	144.8	186	193.8	4	4.2	561	310	55.3
Hernando	99	0	0.0	13	13.1	9	9.1	4	4.0	652	182	27.9
Highlands	190	4	2.1	40	21.1	90	47.4	16	8.4	981	180	18.3
Hillsborough	2,655	1,869	70.4	312	11.8	1,319	49.7	174	6.6	16,179	3,473	21.5
Holmes	103	15	14.6	17	16.5	33	32.0	8	7.8	825	83	10.1
Indian River	223	0	0.0	0	0.0	79	35.4	0	0.0	1,287	213	16.6
Jackson	300	42	14.0	69	23.0	183	61.0	68	22.7	2,161	310	14.3
Jefferson	122	8	6.6	26	21.3	76	62.3	7	5.7	551	321	58.3
Lafayette	22	19	86.4	17	77.3	10	45.5	4	18.2	136	40	29.4
Lake	421	47	11.2	107	25.4	153	36.3	56	13.3	2,580	196	7.6
Lee	491	136	27.7	282	57.4	531	108.1	151	30.8	2,213	1,101	49.8
Leon	507	69	13.6	82	16.2	220	43.4	24	4.7	3,683	453	12.3
Levy	133	69	51.9	84	63.2	112	84.2	46	34.6	791	160	20.2
Liberty	27	3	11.1	5	18.5	13	48.1	2	7.4	150	53	35.3
Madison	161	18	11.2	90	55.9	135	83.9	60	37.3	1,046	223	21.3
Manatee	458	6	1.3	0	0.0	20	4.4	0	0.0	2,940	304	10.3
Marion	553	194	35.1	193	34.9	346	62.6	167	30.2	3,174	504	15.9
Martin	134	0	0.0	7	5.2	23	17.2	3	2.2	884	29	3.3
Monroe	325	11	3.4	32	9.8	88	27.1	17	5.2	2,064	142	6.9
Nassau	123	0	0.0	0	0.0	47	38.2	2	1.6	983	136	13.8
Okaloosa	399	13	3.3	57	14.3	52	13.0	27	6.8	2,742	257	9.4
Okeechobee	84	0	0.0	0	0.0	0	.0.	0	0.0	318	60	18.9
Orange	1,432	879	61.4	1,087	75.9	1,634	114.1	858	59.9	8,461	2,908	34.4
Osceola	171	23	13.5	61	35.7	99	57.9	45	26.3	960	162	16.9
Palm Beach	1,486	1,039	69.9	975	65.6	1,352	91.0	701	47.2	11,563	2,350	20.3
Pasco	338	33	9.8	86	25.4	151	44.7	61	18.0	2,156	253	11.7
Pinellas	1,796	869	48.4	1,073	59.7	1,075	59.9	712	39.6	15,016	1,899	12.6
Polk	1,339	765	57.1	1,030	76.9	1,737	129.7	786	58.7	8,047	2,445	30.4
Putnam	272	26	9.6	69	25.4	97	35.7	24	8.8	1,515	213	14.1
St. Johns	177	76	42.9	138	78.0	156	88.1	78	44.1	1,387	368	26.5
St. Lucie	330	0	0.0	142	43.0	161	48.9	22	6.7	2,153	329	15.3
Santa Rosa	258	0	0.0	0	0.0	3	1.2	0	0.0	1,446	73	5.0
Sarasota	339	48	14.2	184	54.3	238	70.2	172	50.7	3,380	392	11.6
Seminole	485	221	45.6	53	10.9	293	60.4	93	19.2	2,922	507	17.4
Sumter	141	34	24.1	46	32.6	78	55.3	36	25.5	781	193	24.7
Suwannee	177	89	50.3	55	31.1	75	42.4	50	28.2	1,048	115	11.0
Taylor	123	7	5.7	42	34.1	52	42.3	0	0.0	660	203	30.8
Union	40	44	110.0	20	50.0	35	87.5	0	0.0	242	82	33.9
Volusia	852	264	31.0	189	22.2	191	22.4	55	6.5	5,979	500	8.4
Wakulla	60	11	18.0	18	30.0	38	62.3	14	23.0	370	102	27.6
Walton	113	23	20.4	9	8.0	23	20.4	2	1.8	846	113	13.4
Washington	114	13	11.4	18	15.8	62	54.4	12	10.5	778	126	16.2

BUREAU OF PREVENTABLE DISEASES

CHESTER L. NAYFIELD, M.D., M.P.H.
Director

All four divisions of this bureau, Epidemiology, Radiological Health, Tuberculosis Control and Veterinary Public Health, are directed by experienced personnel. As a result the activities are competently and progressively managed.

The bureau participated in sponsoring a course in the control of institutional infections which was very successful. As a result plans were made to repeat the course in the Miami area the following year due to many requests received from hospital administrators.

Of particular note was the diagnosis of one case, with laboratory confirmation, of Venezuelan encephalitis in the Homestead area of Dade County. This was the first documented case in the United States and led to intensive investigative efforts to determine the public health aspects and prevalence of this disease.

The Immunization Program conducted a series of four meetings at Panama City, Gainesville, Tampa and West Palm Beach for the purpose of educating county health department (CHD) workers and promoting the functions of the Vaccination Assistance Program, with emphasis on the birth certificate follow-up procedures.

The bureau also assisted the Hillsborough CHD in its serological survey. This was statistically organized with aid from the National Communicable Disease Center (NCDC) to determine the immunization levels of the population in the county. Much information was obtained from the laboratory studies and a series of articles will be written on the various aspects of this testing program. Cooperation was also given to the University of Florida sponsored influenza immunization survey designed primarily to test the naso-pharyngeal spray method of administering influenza vaccine. Reports on the local survey will also be published next year.

Several meetings were attended at the State Purchasing Commission office in Tallahassee for the discussion of standardization and savings in the purchase of drugs. A well designed method for the state agencies to receive the lowest possible prices was devised by centralizing bid procedures through the State Purchasing Commission.

A meeting was held in Tallahassee with the State Department of Agriculture on the presence of salmonella in eggs. It was pointed out that many epidemics reported were caused by uncooked products containing eggs and that salmonella organisms were often found in shelled eggs so that pasteurization of this product was highly recommended.

A health card study was instituted by sending a questionnaire to all the CHDs in the state. It was very gratifying that a response was obtained from every county. An analysis is presently being made on the effectiveness and rationale of this procedure so that recommendations for necessary changes can follow.

ACCIDENT PREVENTION PROGRAM

This program provides guidance to the CHDs in the expansion of injury control activities, emergency medical services, home, school, and off-the-job safety. Although traffic and industrial safety continue to be the responsibility of other agencies, the staff cooperates very closely with the Florida Rural Accident Prevention Association (FRAPA), American College of Surgeons, Committee on Trauma (ACS), Florida Medical Association (FMA), Florida Federation of Safety Councils, Florida Agricultural Extension Service, and the Florida Highway Patrol (FHP) in the promotion of safety.

The Automotive Crash Injury Research Program which began in Florida in 1964 was concluded during 1968. The FMA and the Florida Hospital Association (FHA) cooperated in this four-year study to investigate highway accidents in which late model automobiles were involved.

Poison control activities continued, and were highlighted by the week of March 17 which was designated Poison Prevention Week. The Governor's proclamation was received, promotional materials developed and sent to key individuals and organizations, and news media throughout the state, with suggestions for local programming. The Agricultural Extension Service of the University of Florida and many CHDs were also active in this campaign. Thousands of antidote charts were obtained and distributed by CHD personnel.

The "Guide for Teaching Poison Prevention in Kindergartens", which was made available in 1965, continued to be very popular to the extent that thousands of copies were reprinted for distribution.

A total of 388 snake bites was reported during 1968 in the snake bite survey compared with 269 the previous year. Of these, 209 were reported as bites by venomous snakes. In each hospitalized case attending physicians supplied a clinical history to the FMA Subcommittee on Venomous Snake Bites. A total of 270 questionnaires was returned by snake bite victims and approximately 100 clinical reports were received from physicians.

In 1965 the Legislature enacted a law delegating to the State Board of Health (SBH) responsibility for specifying minimal equipment for ambulances and certification of ambulance drivers and attendants by the county health officer. During 1968, the decal developed in 1967 was used in the ambulance certification program and made available to providers of ambulance services through the CHDs. These decals were designed for placement on the windshield of the ambulance after inspection for required equipment. During 1968, 227 establishments, 484 ambulances, and more than 2000 attendants were certified, based on the American Red Cross Advanced First Aid Course.

The Committee on Injuries of the American Academy of Orthopedic Surgeons conducted a fourth course on "Emergency Medical Care of the Sick and Injured" in Miami in December. This office assisted in publicizing the course, which was attended by ambulance attendants and operators from throughout the state.

Interest in further improving emergency medical care was quite evident. A grant application for submission to the Governor's Highway Safety Commission was developed for the purpose of establishing within the SBH an emergency medical services program which will provide the leadership so desperately needed to upgrade existing emergency medical services.

The following are additional activities conducted by the Accident Prevention Program:

In-service training and educational activities with CHDs as part of the program's activities continued during 1968;

Completed a Spanish translation of the *rescue breathing cards* during the year. These were used by CHDs in safety activities among the Spanish-speaking population;

Participated in the Migrant Health Conference;

Reproduced slides on food service safety and provided same to local CHDs to be used in their foodhandler courses;

"Survival in the Home", a teaching unit, was finalized for introduction into the school system;

Developed reporting procedures with representatives of the Social Security Administration concerning ambulance certification;

Obtained and distributed information on the availability of "Plants Poisonous to People Wall Charts";

Prepared news releases for statewide distribution concerning automobile safety restraining devices, power window dangers, Indian love beads, fire hazards of calcium hypochlorite, hazardous and potentially hazardous products, fire safety, Christmas safety, kite safety, continuing misuse of contents in pressurized containers, and poison prevention.

DIVISION OF EPIDEMIOLOGY

E. CHARLTON PRATHER, M.D., M.P.H.
Director

This division has as its goal promotion of community health through control of communicable diseases. Collection, collation, analysis and utilization of weekly communicable disease data from the 67 counties is a major responsibility and involves accounting and surveillance of reports from laboratories, from hospitals, susceptible populations, as well as formal reports of disease occurrence. Through the application of epidemiologic techniques, the public health significance of various infectious diseases is ascertained and control measures instituted as indicated. The division provides accurate and current information on preventive procedures and practices for the communicable diseases, informs the public of infectious disease hazards and advocates preventive medicine principles; it is administratively responsible for the Venereal Disease Control Program, the Vaccination Assistance Program and the special research project on the Epidemiology of Unclassified Mycobacterial Infections.

Practicable disease surveillance is dependent in large measure upon a knowledge of disease ecology, ever current intelligence of the agents' distribution among any particular population, the presence/absence and distribution of persons susceptible to any particular agent and a workable plan for disease prevention or limitation of spread. The division addresses these objectives.

Notable during 1968 was staff participation in a "Viral Immunity Survey" conducted in Hillsborough County--a large activity involving the Hillsborough County Health Department (CHD), several bureaus and divisions of the State Board of Health (SBH), the Epidemiologic Research Center, and the National Communicable Disease Center (NCDC). Through interview of a probability sample of Hillsborough County residents (some 2000 families) and the laboratory testing of blood samples from them, the study determined immunity and susceptibility rates to several viruses of public health importance: polio, measles, rubella, mumps, and the common arboviruses; and measured completeness of reporting, subclinical attack rates, rates of complications resulting from infection and defined groups at greatest risk for the infections investigated. The data gathered will carry world-wide influence.

Additionally, late in the year the division cooperated with the University of Florida Medical School, the Hillsborough CHD, the Epidemiologic Research Center, and the Hillborough County Tuberculosis and Respiratory Diseases Association in a large field study of influenza immunizations. The objective here was the evaluation of nasally and orally instilled aerosol influenza vaccine for the prevention of influenza. Some 2100 classroom teachers constituted the study group. The follow-up surveillance aspects of the investigation are still in progress.

Other smaller scaled surveillance-supportive activities included the investigation of histoplasmosis among cave bats, the relationship between meningococci and ECHO viruses in meningitis, a survey of the immunity status of public school first graders, and evaluation of the completeness of gonorrhea reporting, a study of the efficiency of routine syphilis serologies among health card applicants for discovering infectious syphilis, a study of the prevalence of tetanus in Florida, an appraisal of leptospirosis in the state, a search into "cause" of an identified epidemic cluster of meningomyloceles, initiation of an experimental morbidity data collection system for recording incidence of influenza, and a careful reassessment of Florida's experience with leprosy for possible insight into the bases of this infection's peculiar geographic cluster in the state.

Particularly notable infectious disease morbidity recorded during 1968 follows:

Measles

Measles incidence is the lowest ever recorded in Florida. The 534 cases (two with encephalitis) reported in 1968 are about one quarter the number recorded in 1967 and one eighth the number of the preceding year. Widespread measles vaccine usage is entirely responsible. Fourteen counties conducted mass measles eradication programs during the year with immunizations of more than 49,581 children. What probably will be Florida's last epidemic of measles was occurring in Jacksonville at the end of the year. The city was tooling-up for a community-wide epidemic control program as the year ended. In the remainder of the state, measles incidence was so low that essentially all suspected cases were coming to laboratory examination for confirmation of the diagnosis. Truly measles is on the threshold of oblivion in Florida. However, so long as measles continues to exist anywhere in the world, susceptible peoples everywhere carry risks for its ravages. The highest level of "maintenance immunization" must continue and all children immunized as they reach one year of age.

Pointed attention to the Jacksonville epidemic largely resulted from an outbreak within a private kindergarten. There were 140 students, 33 contracted measles. All but the original index case and one other had been previously immunized with live measles vaccine modified by a simultaneous dose of gamma globulin (the recommended procedure during the earlier years of availability of the live vaccine). The great majority had received their vaccine at nine months of age. The observation had significant nationwide import for it represented the first real outbreak resulting from vaccine failure. Careful epidemiologic study was underway as the year ended, but data available were conclusive that the vaccine failures were relatable to the administration of vaccine at nine months of age--an age when maternal rubeola antibodies are still present and thus influential in a negative way on the "take" of the measles vaccine. The city epidemic control program thus was encouraging "boosters" for children immunized before their first birthday with the "two shot" measles vaccine (this, too, was a "first" in the nation).

German Measles (Rubella)

As all infectious diseases, rubella is remarkably predictable in its cyclic occurrence. Over the years peaks of incidence have occurred at six to eight year intervals. Florida, as the rest of the nation, experienced a sizeable peak in 1963-64. It preceded by less than a year, and caused, the nation's worse epidemic of malformed babies. Another peak is expected in 1970-71. The 1591 cases reported in Florida during 1968 are "in pattern" from our low year of 1965 and its 892 cases. A vaccine developed by the Merck, Sharp and Dohme Company is now undergoing field tests (some in Florida) and it is everyone's hope that it will be available in time to alter the cycles of rubella.

Salmonellosis

The number of identified salmonella infections remains alarmingly high: 1226 were recorded in 1968. That slightly less than half of these were among children 0-3 years of age--the symptomatic cases most likely to come to laboratory examination--is consistent with general knowledge that these infections are essentially ubiquitous and of little medical consequence in the older person. Several food associated outbreaks were recorded. As regards potentials for any hope of control of these infections, it's notable that an outbreak of salmonellosis in Florida has never been traced to an asymptomatic human carrier (yet, we continue to spend large sums of laboratory and personnel funds on the routine bacteriologic examination of healthy health card applicants—foodhandlers).

Hepatitis

As expected, infectious hepatitis sharply rose this year: 1149 cases were reported as compared to the 639 of 1967. Still greater numbers will likely occur in 1969. Only scrupulous personal hygiene and conscientious hand washing on the part of all peoples can alter the pattern of occurrence. Systematic surveillance of hepatitis is aimed essentially at identifying common vehicle and common source outbreaks--one such epidemic was recorded in 1968.

The up-surge of serum hepatitis is alarming--128 cases were reported during the year as compared to 39 and 29 in the preceding two years. Dade County contributed 86 of the 128 cases. The great majority were relatable to blood transfusions, but the true extent of the role played by self-administered and illicit parenteral drug usage cannot be easily assessed. There is no method of identifying asymptomatic carriers of the serum hepatitis virus who present as potential blood donors. Careful recording of case occurrence and surveillance of relatable blood donors may offer hope for some case prevention. Such a program is under consideration for 1969.

Whooping Cough

This common but totally preventable childhood condition exhibited a worrisome slowly declining pattern during recent years, but 1968 witnessed a precipitous drop in incidence--98 cases were reported in 1968 as compared to 271 and 205 in the preceding two years, respectively. Concerted immunization activities and increasing attention to the early immunization of infants surely is responsible. The pertussis vaccine is entirely capable of preventing this infection.

A new concern however is pertussis infection in the older child and teenager, and possibly the young adult. There is no knowledge concerning the efficacy of the vaccine in prevention of a tracheo-bronchitis due to the whooping cough organism in this age group. Equally discerning is a general hesitancy to offer pertussis vaccine boosters to this age group. The matter is under careful study by a nationally constituted group.

Diphtheria

Following 1967's record all time low for annual incidence of diphtheria in Florida (seven cases), 1968 provided an "epidemic year" of 16 cases. Madison and Duval Counties in two outbreaks contributed nine of them. Others were sporadic in distribution and involved essentially all areas of the state. Two of the 16 cases were above 25 years of age; three were teenagers. Two of Madison's four cases died--morbid evidence that early and adequate immunizations and appropriate boosters for all peoples must continue to occupy a place of high priority in public health programming.

Tetanus

Tetanus, another of the unnecessary diseases, is finally yielding. The 11 cases of 1968 marks Florida's record low incidence year—a sharp reduction from 1967's 24 cases, 1965's 29 cases and 1964's 27 cases. The increasing public consciousness to the need for tetanus immunization is surely responsible.

Influenza

The record shows 29,354 cases of influenza during 1968. More than 18,000 of these occurred during the first three months of the year--the 1967-68 epidemic of influenza A2. The year 1968 will be remembered though as the "Hong Kong Flu" year. The first real antigenic variant of the Group A influenza viruses since 1957 was identified in Hong Kong in June of 1968. The new variant's immunologic similarity to earlier A strains was minimal; available immunity in the world's population was ineffective. Available vaccines offered limited protection. By the end of 1968 the Hong Kong virus had spread to virtually all parts of the globe, Florida included. Some 11,000 cases were reported in Florida during the three months period October-December. The laboratory surveillance program had documented the presence of the new virus in essentially every area of the state. Leon County, Tallahassee, provided the first case; Jacksonville University in Duval County yielded the first epidemic cluster in early November. The infection rapidly spread south and involved the entire state by the end of the year. Total morbidity is expected to exceed even the epidemic of 1957.

Deaths attributable to the influenza, though increasing, had not reached alarming levels as the year ended. Notable, however, was a few sudden deaths due to influenza pneumonia in otherwise healthy middle-aged and young men--conditions reminiscent of the 1957 situation.

Malaria

There were 25 new cases of malaria recorded in 1968--all in servicemen returning from Vietnam. The Florida malaria days are well remembered by many; we continue to have the appropriate mosquitos. That an unidentified infectious case could infect local mosquitos and establish an endemic focus concerns us all. We must remain ever alert for the prevention of such an eventuality. Required is the early diagnosis of every case, accurate information as to the source of every case and the assurance that no case has the ill-fortune of exposure to mosquitos.

Food Poisoning

The 743 cases of food poisoning reported in the state during 1968 represent an all-time high. The number is sharply above the 130 reported in 1967. The figure does not include food associated illnesses due to certain specific identified causes, such as salmonella, typhoid, tape worm, brucellosis, tularemia and the like. A significant proportion of the reported cases were staphylococcal intoxications, mostly small outbreaks. The greater number however were family outbreaks of nausea, vomiting and possibly diarrhea--specific etiology not determined. There is an urgent need for more careful attention to food poisoning, the determination of its cause and plans for its prevention.

Rocky Mountain Spotted Fever

Rocky Mountain Spotted Fever is a newcomer to Florida. Though sporadic cases have been reported over the years, the first locally acquired case was identified in Pasco County during 1965. (The presence of the appropriate tick vector in our state is well known.) Three additional cases were recorded in 1968. In two the diagnosis was based on serologic evidence with Proteus antigens and clinical findings; the third yielded more specific complement fixing antibodies against the spotted fever Rickettsial group in a heart blood taken at post mortem examination. Ticks collected in the vicinity of the latter case (Clay County) and one other (Pasco County) failed to yield *Rickettsia rickettsii.*

IMMUNIZATION PROGRAM

This program, with support from a grant by the U.S. Public Health Service (USPHS), has been in operation for five years. The primary functions are to increase the immunization levels of the very young through a system of surveillance and follow-up of infants; to develop and conduct programs which allow the rapid immunization of susceptibles when new vaccines are introduced; and to promptly initiate immunization programs to control or prevent the epidemic spread of diseases for which vaccines are available.

Infant Surveillance and Follow-up

Sixty counties participated in this activity during 1968. Table 29 contains a summary of the immunization levels of 18 month old infants. The proportion of infants with a history of immunization with all vaccines increased from 16.9 per cent in 1967 to 25.4 per cent. The proportion immunized against measles also increased from 24.4 per cent to 43.0 per cent. It should be noted that measles vaccine now occupies a position of increased priority over smallpox in most immunization schedules. Smallpox immunization decreased from 42.1 per cent to 34.7 per cent in 1968. The proportion of infants with completed DPT and polio vaccine histories increased slightly during 1968 to approximately 70 per cent.

Measles Eradication

Measles continued to decline during the year. The 534 cases reported in 1968 are less than one third the number reported in 1967. No deaths due to measles were reported. Figure 1 depicts the seasonal pattern for measles in Florida, comparing trends in 1966, 1967, and 1968 with preceding (1961-1965) five years. More than 100,000 doses of vaccine were administered to susceptible children in clinics and intensive campaigns during 1968.

Epidemic Control Programs

The immunization program staff provided epidemic prevention and control assistance in four counties during 1968. Typhoid and tetanus toxoid vaccines were administered to more than 1000 students in Sarasota following inundation of the first floor of the high school. More than 8000 residents of Madison County received diphtheria-tetanus vaccine after four diphtheria cases (with two deaths) were reported.

Unusually high numbers of measles cases triggered two other intensive immunization programs. Some 5000 children in Orange County elementary schools, and about 2000 children in Jacksonville elementary schools and kindergartens were immunized.

VENEREAL DISEASE CONTROL PROGRAM

Venereal diseases (VD) continued to be a major public health problem in Florida. The apathetic attitude of the public concerning venereal diseases creates problems for public health workers in controlling the spread of disease. If the public would react to the large number of venereal diseases as they do to smallpox, plague, typhus, measles or the Hong Kong flu, then action would be demanded to eradicate the disease.

FIGURE 1
MEASLES – SEASONAL INCIDENCE, FLORIDA, 1961-1968

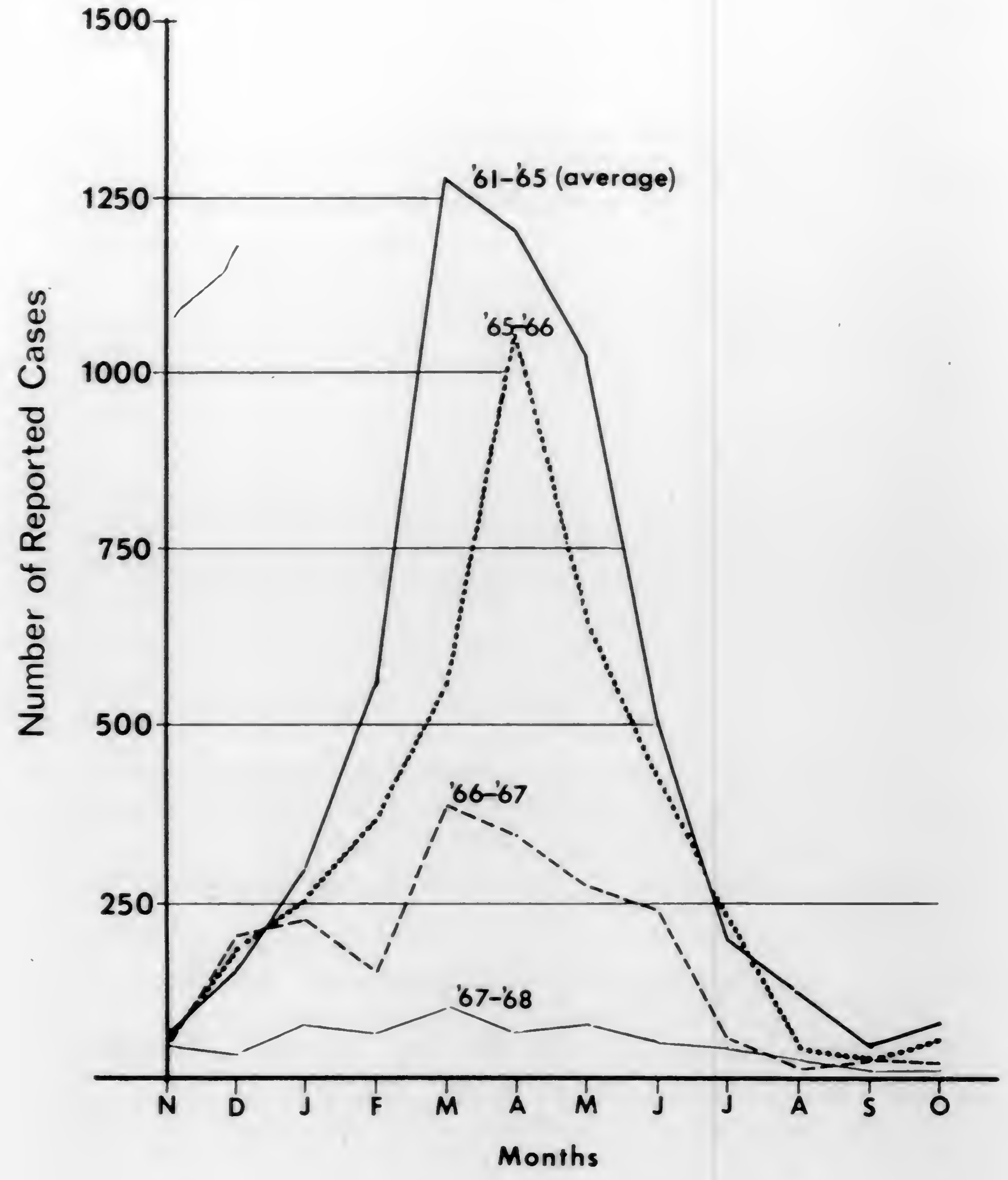


TABLE 29
INFANT IMMUNIZATION SURVEILLANCE
PER CENT OF 18 MONTH OLD CHILDREN IN POPULATION AT RISK* IMMUNIZED AGAINST SELECTED DISEASES, BY COUNTY, FLORIDA, 1968

COUNTY	Number of Children at Risk	Per Cent of Children at Risk Immunized with: All Vaccines	Measles Vaccine (One Dose)	Smallpox Vaccine (One Dose)	Polio Vaccine (Two or more Doses)	DPT Vaccine (Three or more Doses)	Polio Vaccine (One or more Doses)	DPT Vaccine (One or more Doses)	No Known Immunization
STATE	60,664	25.4	43.0	34.7	69.8	69.7	80.6	82.4	15.4
Alachua	1,459	27.4	46.5	36.0	77.1	76.3	85.9	86.7	13.2
Baker	131	77.9	84.0	83.2	99.2	99.2	99.2	99.2	0.8
Bay	915	36.5	64.8	41.4	75.0	74.9	86.6	88.1	10.5
Bradford	***								
Brevard	3,585	27.2	44.8	32.3	74.4	73.1	81.1	83.1	16.9
Broward	6,042	28.7	47.5	36.8	69.3	69.1	82.2	83.5	15.6
Calhoun	101	12.9	48.5	14.9	67.3	69.3	82.2	87.1	12.9
Charlotte	24	37.5	62.5	37.5	83.3	70.8	91.7	91.7	8.3
Citrus	140	40.0	47.1	50.0	51.4	57.1	57.9	59.3	40.7
Clay	***								
Collier	87	14.9	21.8	17.2	55.2	51.7	72.4	72.4	26.4
Columbia	400	33.3	63.3	35.5	70.8	73.5	82.8	86.0	11.5
Dade	13,881	29.2	47.5	40.3	68.8	70.1	80.3	82.1	12.7
De Soto	33	21.2	57.6	27.3	93.9	90.9	100.0	100.0	0.0
Dixie	Reports	not du	e during	year					
Duval	***								
Escambia	2,935	27.7	57.1	34.0	80.3	80.4	93.4	94.1	5.5
Flagler	82	13.4	17.1	19.5	37.8	37.8	63.4	61.0	36.6
Franklin	105	3.8	34.3	9.5	45.7	42.9	65.1	67.6	31.4
Gadsden	736	42.4	49.6	46.1	64.5	63.2	76.4	76.0	22.7
Gilchrist	38	18.4	42.1	21.1	55.3	52.6	65.8	60.5	34.2
Glades	48	54.2	54.2	54.2	54.2	54.2	100.0	100.0	0.0
Gulf	***								
Hamilton	119	12.6	29.4	19.3	58.0	57.1	73.1	73.1	25.2
Hardee	79	8.9	36.7	8.9	55.7	54.4	73.4	73.4	26.6
Hendry	233	13.7	40.3	18.0	61.8	59.2	77.3	76.8	22.7
Hernando	167	16.2	23.4	26.3	60.5	55.7	80.2	85.0	12.6
Highlands	372	8.1	19.1	15.3	42.5	41.4	54.6	54.3	44.4
Hillsborough	6,754	29.2	39.7	44.6	68.3	69.3	76.7	80.2	18.7
Holmes	94	6.4	19.1	8.5	33.0	31.9	41.5	42.6	55.3
Indian River	***								
Jackson	410	2.7	64.4	2.7	76.3	76.1	89.0	89.8	9.8
Jefferson	Reports	not du	e during	year					
Lafayette	Reports	not du	e during	year					
Lake	Reports	not du	e during	year					
Lee	280	22.5	55.4	26.8	75.0	73.6	83.9	85.7	13.2
Leon	1,194	12.3	26.3	24.5	56.0	56.4	73.8	74.5	24.5
Levy	175	12.6	27.4	21.7	36.6	50.9	52.6	70.3	29.7
Liberty	46	43.5	76.1	32.2	95.7	95.7	97.8	97.8	2.2
Madison	***								
Manatee	184	20.7	27.7	26.6	34.2	35.9	39.1	40.2	57.6
Marion	Reports	not du	e during	year					
Martin	Reports	not du	e during	year					
Monroe	517	23.8	35.6	54.4	84.5	77.4	91.3	85.1	7.2
Nassau	268	56.7	63.1	57.1	73.9	73.1	76.1	76.5	23.1
Okaloosa	781	16.4	31.9	32.1	71.1	70.8	84.4	83.2	12.3
Okeechobee	15	20.0	53.3	20.0	86.7	80.0	93.3	93.3	6.7
Orange	4,200	24.5	38.8	36.2	70.9	67.1	82.4	87.1	11.8
Osceola	245	18.0	33.1	24.9	65.7	63.7	82.9	82.4	16.3
Palm Beach	3,784	20.8	43.0	26.6	84.7	82.4	93.7	93.7	5.1
Pasco	488	4.9	9.0	12.1	25.8	25.8	30.1	30.7	68.9
Pinellas	1,190	23.3	46.0	33.0	59.0	61.1	65.0	66.4	33.1
Polk	3,796	17.0	33.4	24.1	72.7	72.1	84.7	84.2	14.9
Putnam	522	4.6	10.7	12.5	47.1	45.6	54.8	57.9	20.5
St. Johns	86	33.7	57.0	36.0	54.7	65.1	86.0	86.0	14.0
St. Lucie	86	7.0	24.4	8.1	24.4	24.4	60.5	59.3	39.5
Santa Rosa	515	7.8	30.7	13.0	55.3	56.3	71.1	72.8	23.9
Sarasota	317	26.8	49.8	30.3	60.6	61.5	65.9	65.9	33.4
Seminole	984	20.7	30.0	47.5	71.6	70.5	80.2	84.9	13.4
Sumter	Reports	not du	e during	year					
Suwannee	Reports	not du	e during	year					
Taylor	***								
Union	23	78.3	87.0	78.3	87.0	87.0	100.0	100.0	0.0
Volusia	1,653	18.3	34.9	35.4	68.5	71.2	75.3	80.5	15.7
Wakulla	92	4.3	18.5	6.5	32.6	32.6	44.6	48.9	46.7
Walton	106	23.6	38.7	37.7	86.8	76.4	94.3	94.3	5.7
Washington	147	29.3	46.3	29.3	62.6	74.1	84.4	88.4	8.8

*Resident 18 month old infants.

**Includes only infants with: 1 Measles, 1 Smallpox, 2 Oral Polio, abd 3 DPT doses.

***Counties not participating during 1968.

One of the factors which contributed to the spread of syphilis and other VD in Florida was the large number of transient persons entering and leaving the state, such as agricultural farm workers, merchant seamen and tourists. In 1968 Florida received epidemiologic information from 40 states, one foreign country, and the military that 1072 persons had been exposed, or were suspected of being exposed, to early syphilis infections. During the same period Florida relayed information to 42 states, six foreign countries, and the military that 1083 persons had been exposed or were suspected of being exposed to early syphilis infections. Almost half of these persons were not located and examined. Consequently, the chain of infection continued.

Epidemiology

Effective medical techniques of the treatment and cure of syphilis, gonorrhea, and other venereal diseases are known today but treatment and curing known cases is not enough. The only effective way to eradicate VD is to find each case in its early stages and to make sure the patient is treated as quickly as possible.

The most important epidemiologic process in the entire eradication picture is the interview of the infected patient for his sexual contacts and the tracing, examining and treating of those people who were exposed to the infected patient. There are no isolated cases of syphilis.

Florida's trained staff of professional VD interviewer-investigators succeeded in obtaining at least one or more sex contacts in 96 percent of the persons interviewed in 1968. As an illustration of the efforts expended by these investigators over 40,000 VD victims have been interviewed during the past five years and close to 70,000 contacts were named by those individuals for additional investigation and interview.

Morbidity

Primary and Secondary Syphilis

Florida showed a significant decrease of 17.4 per cent in reported cases of primary and secondary syphilis in 1968 compared to 1967, after a substantial and dramatic climb over an eight year period from 1957 through 1965. This trend reflects the effectiveness of the health department-private physician cooperative work against infectious syphilis. On a national level the decrease is reported to be nine per cent in 1968. The major portion of the infectious syphilis in Florida is located in the large urban areas. In 1968 Miami, Jacksonville, and Tampa reported almost 40 per cent of all the cases. Reported infectious syphilis rates per 100,000 population for eastern cities over 200,000 population shows Miami, fourth; Jacksonville, seventh; and Tampa, ninth. The high Florida rates reflect to a great degree good reporting and good epidemiology. (See Figure 2)

Early Latent Syphilis

Reported early latent syphilis shows a slight increase in 1968. This is not significant because the early latent stages have declined more rapidly than the primary and secondary stages and this indicates that a relatively large volume of early latent syphilis cases is being detected in the infectious stages. The early latent syphilis case rate in 1968 of 14.4 per 100,000 population is the lowest since 1961.

Late and Late Latent Syphilis

There are four types of late syphilis. They are: (1) latent--that stage of syphilis when there are no clinical signs or symptoms of the disease; the spinal fluid has been examined and is negative; and serological tests for syphilis are positive; (2) neurosyphilis--involvement of the central nervous system; (3) cardiovascular--inflammation of the aorta with secondary effects on the heart; (4) late benign syphilis--the term benign is used because the lesions of late benign syphilis seldom result in total physical incapacity or death. The lesion of late benign syphilis is the gumma.

Reported late and late latent syphilis continued to show a dramatic decrease. Only 1052 cases were reported in 1968. In 1963, 3742 cases were reported. This represented a 39 per cent decrease and a drop in rates from 66.3 to 17.5. (See Table 30). This reduction was evidence that the prevalence of syphilis or reservoir of infected persons in Florida has decreased.

Congenital Syphilis

The number of babies born with syphilis and others identified as having been born with syphilis was greatly reduced in 1968 according to reports. Only 21 cases of infants of less than one year were reported to have early congenital syphilis and only 43 others were reported with late congenital syphilis. This was a drop in rate from 5.7 in 1963 to 1.1 in 1968.

Gonorrhea

According to morbidity reports in 1968 gonorrhea was starting to climb. This was also supported by recent State Board of Health surveys among private physicians and a VD incidence survey conducted by the American Social Health Association and the USPHS. The latter survey estimated that one and one-half million gonorrhea cases were treated in 1968. For Florida the estimated total number of cases treated during fiscal year 1968 by all sources totaled 50,850. It was apparent that gonorrhea in Florida, as well as the nation, reached epidemic proportions and there was a need for stepped-up planning and major increases in financing for gonorrhea control programs.

Other VD

These three diseases (chancroid, granuloma inguinale, and lymphogranuloma venereum) did not constitute a serious public health problem because of the relatively few cases reported. A total of only 119 was treated in 1968. (See Table 31).

Venereal Disease Education and Information

Continued efforts of obtaining individual and community acceptance and securing maximum response of early voluntary reporting to medical facility for diagnosis and treatment remained the important steps toward control and eventual eradication of venereal disease.

The VD staff continued to work with community organizations to create awareness about the VD problem and to motivate these organizations to develop action programs of their own. Specifically these groups were: Parent-Teacher Association (P-TA), County Medical Societies, Junior Chamber of Commerce, Ministerial Alliance, Ladies' Medical Auxiliary, and Pilot's Club International. Lectures, talks, and audio-visual aids were presented to discuss the VD problem and explain what is being done.

Selected teachers received instruction and materials through a county-wide teacher's workshop, conducted by local school and county and state health department officials, in cooperation with the State Department of Education, state and local P-TA and medical societies. To insure the effectiveness of VD education in school curriculum, workshops including all phases of VD education, were conducted in: Nassau, Jefferson, Lake, Hernando, Jackson, Calhoun, Gadsden, Liberty, Lee, Dade, Manatee, Escambia, Santa Rosa, Walton, Broward, Suwannee and Hamilton. In addition, all instructors received a Teacher's Handbook, a VD Five Session Plan and selected printed materials.

Each county that participated with the Communicable Disease Workshop was visited to ascertain the status of VD education in schools. It was learned that a comprehensive unit on VD education has been inaugurated in the junior high school curriculum in nine of the 16 counties having participated with county-wide workshops during school year, September 1967-June 1968. The recommended unit consisted of five hours of classroom instruction reinforced by pre-educational and post-educational testing with the use of visual aids, "A Quarter Millon Teenagers" and "The Invader", along with selected VD pamphlets and a student's manual on VD education.

A specific highlight in the progress of the program was the planning for and development of a Five Session Lesson Plan designed for use in providing VD instruction with junior/senior high school students. The use and effectiveness of this aid will be evaluated when it has been used by teachers.

Mass media continued to cooperate in their efforts of educating the public through radio, television, and the press. In addition to mass media efforts, VD personnel provided displays and exhibits for county fairs, state Parent-Teacher Associations and medical societies.

During 1968, VD personnel participated with numerous activities in allied fields. They attended Southern Branch of American Public Health Association, American Social Health Association, state Parent-Teacher Association and Teacher's Project in Health Education; made interview appearances on several 30 minute television shows; wrote an article for Sanichat Newsletter, a publication by state sanitarian organization with state and national distribution; prepared and presented 12 formal speeches before professional organizations and civic groups; presented VD lectures to classes of public health nursing students at the University of Florida, as well as lectures to the dormitory counselors of the University; and assisted Palm Beach County school officials in developing a section of Health Education curriculum on VD.

Electronic Data Processing

In cooperation with the Division of Data Processing, the VD Program instituted a computer program for infectious syphilis epidemiology. The program initiated on July 1, 1968, consisted of summaries of epidemiology results by state and by region. These summaries included the analysis of the source and spread of infection by syphilis stage, and the results of interviews and investigations. Two tables of results are submitted to the VD Program by month and year to date.

American Social Health Survey

A nationwide mail survey of all physicians in private practice was conducted April-June 1968 by the American Social Health Association in an effort to determine the total number of cases of syphilis and gonorrhea treated. More than 65 per cent of the nation's 200,000 physicians responded to the survey. The survey indicated that in Florida reporting, both public and private, was nearly 70 per cent complete for infectious syphilis, less than 45 per cent for other forms of syphilis, and only about 30 per cent of all gonorrhea cases were reported. Infectious syphilis showed a marked improvement from the findings of a similar study conducted in 1962 when it was estimated that 41 per cent of private and public cases were reported. On the other hand, reporting of "other syphilis" cases fell from over 70 per cent complete in 1962. Figures for gonorrhea were not available from the earlier survey. According to the survey Florida ranked number one among states in per cent of infectious syphilis reported by private physicians. This is a compliment to the VD Control Program/Private Physician relationship and reflects the rapport between the two.

Migrant Syphilis Casefinding

The success of the "Migrant Syphilis Casefinding Demonstration Project" in 1967-68 indicated the need for continued surveillance among this highly mobile population. The Florida Medical Association passed a resolution that this work be continued during the 1968-69 season. Therefore, a full time worker was assigned to this project to coordinate migrant syphilis casefinding statewide. According to reports from July-December 1968 there has been a 76 per cent decrease in infectious syphilis among migrant workers.

The Future of VD Control

With the enactment of Public Law 89-749 (Comprehensive Health Planning and USPHS amendments of 1966), and the recent reorganization of the USPHS, there will no longer be a specific appropriation for aid to states for VD Control.

Since the 1940's the VD Program of the USPHS had a separate appropriation for VD Control. In order for states to obtain federal aid state and local health departments simply submitted project grant applications to the NCDC. Here, these grants were reviewed, approved, and funds awarded to assist states in carrying out VD Control activities.

The new legislation abolished categorical grants. Under the new legislation a lump sum appropriation for all categorical projects was conducted in the new Act but without earmarking a specific amount for any category. States will have the opportunity to identify their own priority of health needs.

Although Comprehensive Health Planning provides many advantages for states the new legislation could cause reductions in VD Control activities because of uncertainty in federal participation.

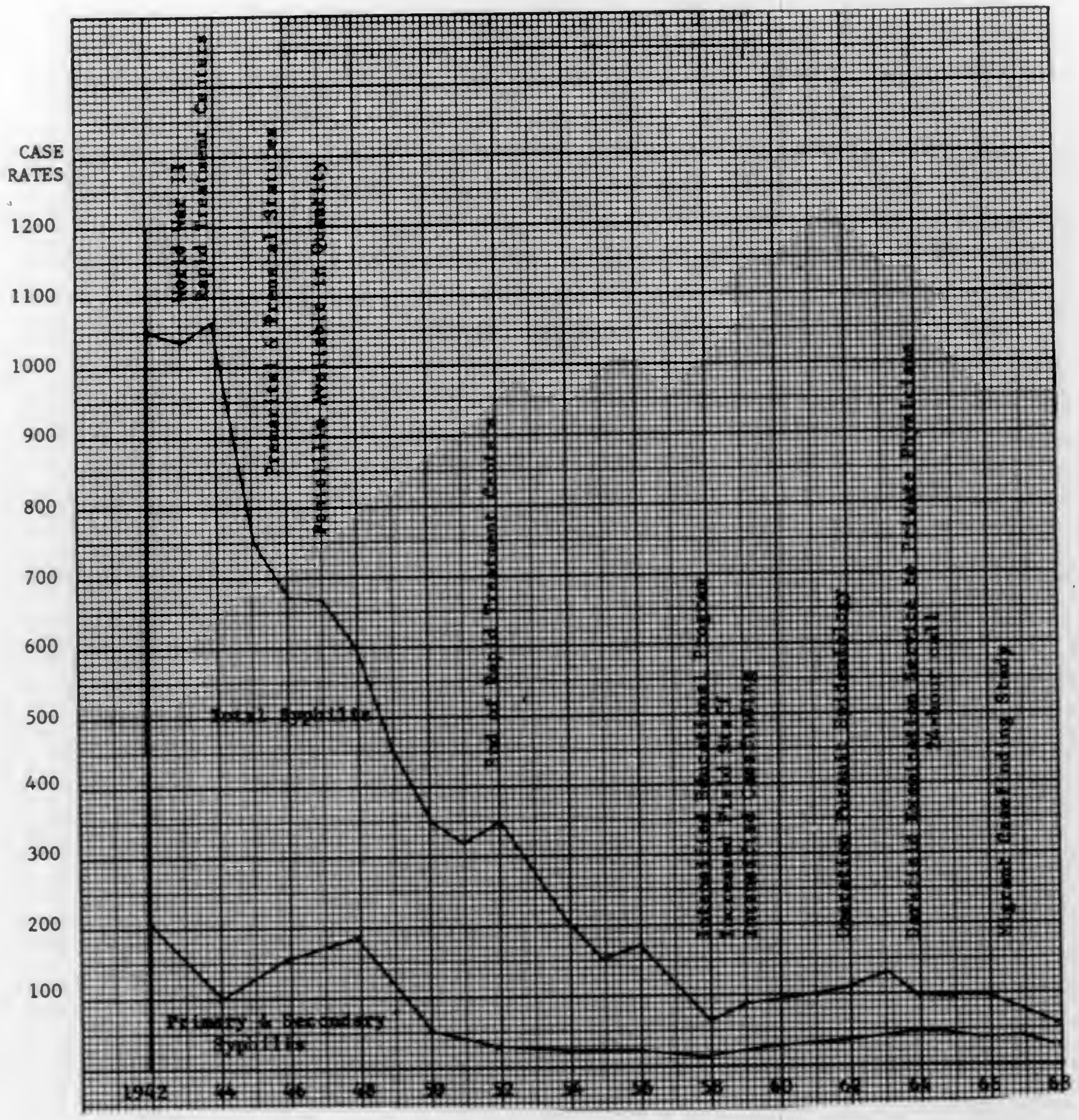
TABLE 30
REPORTED SYPHILIS CASES AND RATES PER 100,000 POPULATION, BY STAGE, FLORIDA 1958-68

	STAGE				
YEAR	TOTAL	Primary and Secondary	Early Latent	Late and Late Latent	Congenital
		Number of Cases			
1968	3610	1595	898	1052	65
1967	4378	1933	861	1456	128
1966	5699	1890	972	2692	145
1965	6132	2356	1037	2527	212
1964	5908	2005	1011	2677	215
1963	6945	1883	999	3742	321
1962	6004	1632	1505	2676	191
1961	5324	1118	1561	2493	152
1960	4115	639	1047	2254	175
1959	4332	344	916	2875	197
1958	3186	201	741	2056	188
		Rates per 100,000 Population			
1968	58.2	25.7	14.5	17.5	1.1
1967	73.7	32.5	14.5	24.5	2.1
1966	95.9	31.9	16.3	45.3	2.4
1965	105.6	40.6	17.9	43.5	3.7
1964	103.6	35.1	17.7	46.9	3.8
1963	123.1	33.4	17.7	66.3	5.7
1962	112.2	30.5	28.1	50.0	3.6
1961	103.2	21.7	30.3	48.3	2.9
1960	82.1	12.7	20.9	45.0	3.5
1959	91.3	7.3	19.3	60.6	4.2
1958	70.8	4.5	16.5	45.7	4.2

TABLE 31
VENEREAL DISEASE MORBIDITY BY COUNTY, FLORIDA, 1968

COUNTY	Primary and Secondary		Early Latent		Cong. Syphilis		Other Syphilis		Total Syphilis		Gon-or-rhea	Other V.D.	Total V.D.
	Private Physician	Clinic	Private Physician	Clinic	Private Physician	Clinic	Private Physician	Clinic	Private Physician	Clinic			
Alachua	3	9	3	5	—	1	2	6	8	21	18	2	49
Baker	1	2	—	—	—	—	—	1	1	3	—	—	4
Bay	—	—	1	1	—	—	1	6	2	7	129	—	138
Bradford	1	11	3	3	—	1	—	—	4	15	11	—	30
Brevard	10	15	5	8	—	2	11	5	26	30	194	2	252
Broward	42	96	21	63	1	1	19	53	83	213	569	4	869
Calhoun	—	—	—	—	—	—	—	—	—	—	—	—	—
Charlotte	—	—	—	—	—	—	3	2	3	2	5	—	10
Citrus	—	—	—	—	—	—	—	—	—	—	4	—	4
Clay	—	—	—	—	—	—	—	—	—	—	3	—	3
Collier	32	22	7	12	—	—	1	1	40	35	33	1	109
Columbia	—	1	—	—	—	—	—	—	—	1	1	—	2
Dade	126	278	70	176	1	12	83	210	280	676	3089	44	4089
De Soto	5	—	2	—	—	—	5	1	12	1	12	1	26
Dixie	2	2	—	—	—	—	—	2	2	4	—	—	6
Duval	61	93	28	58	1	6	26	27	116	184	1104	9	1413
Escambia	5	56	2	39	1	3	3	9	11	107	1168	4	1290
Flagler	4	1	5	4	—	—	—	1	9	6	—	—	15
Franklin	—	—	—	—	—	—	—	—	—	—	14	—	14
Gadsden	2	2	—	1	—	—	1	2	3	5	37	1	46
Gilchrist	—	—	—	—	—	—	—	—	—	—	6	—	6
Glades	—	1	—	—	—	—	1	—	1	1	16	—	18
Gulf	—	—	—	—	—	—	—	—	—	—	2	—	2
Hamilton	—	—	—	—	—	—	—	1	—	1	—	—	1
Hardee	5	3	1	—	—	—	3	1	9	4	1	—	14
Hendry	—	7	1	1	—	—	9	3	10	11	5	—	26
Hernando	—	—	—	1	—	—	1	1	1	2	5	—	8
Highlands	4	7	—	2	—	—	6	—	10	9	11	—	30
Hillsborough	17	40	8	17	2	1	36	26	63	84	2229	5	2381
Holmes	—	—	—	—	—	—	—	—	—	—	—	—	—
Indian River	—	—	—	1	—	—	1	4	1	5	99	1	106
Jackson	—	—	—	1	—	—	—	—	—	1	19	—	20
Jefferson	1	3	—	—	—	—	1	4	2	7	—	—	9
Lafayette	—	—	—	—	—	—	—	—	—	—	—	—	—
Lake	15	10	15	6	—	—	5	14	35	30	19	2	86
Lee	6	27	6	15	—	1	2	7	14	50	384	2	450
Leon	4	9	1	14	—	1	2	9	7	33	863	7	910
Levy	1	—	1	5	—	—	—	1	2	6	2	—	10
Liberty	—	—	—	—	—	—	—	—	—	—	—	—	—
Madison	—	1	—	—	—	—	—	—	—	1	3	—	4
Manatee	7	34	—	7	—	1	5	7	12	49	366	—	427
Marion	—	8	—	8	—	—	4	9	4	25	208	—	237
Martin	3	11	2	2	—	1	5	4	10	18	11	1	40
Monroe	3	2	1	1	—	1	2	6	6	10	39	—	55
Nassau	5	1	1	—	—	—	—	1	6	2	3	—	11
Okaloosa	1	4	—	8	—	—	—	—	1	12	24	1	38
Okeechobee	—	—	1	—	—	—	1	1	2	1	—	—	3
Orange	13	53	8	31	—	1	7	23	28	108	845	6	987
Osceola	3	1	2	1	—	—	—	—	5	2	3	—	10
Palm Beach	46	127	11	77	3	6	44	111	104	321	1107	7	1539
Pasco	4	1	—	1	—	1	3	1	7	4	10	—	21
Pinellas	8	25	7	14	1	2	20	6	36	47	412	12	507
Polk	6	18	2	12	—	2	30	25	38	57	431	2	528
Putnam	—	2	—	—	1	—	3	1	4	3	5	—	12
St. Johns	1	8	4	4	—	—	—	6	5	18	99	1	123
St. Lucie	16	14	8	11	2	—	9	13	35	38	104	7	184
Santa Rosa	—	—	—	2	—	—	—	1	—	3	3	—	6
Sarasota	7	6	—	8	2	1	8	3	17	18	74	—	109
Seminole	15	11	6	11	—	1	4	13	25	36	155	—	216
Sumter	—	—	—	1	—	—	—	—	—	1	73	—	74
Suwannee	—	—	—	—	—	—	1	—	1	—	—	—	1
Taylor	5	27	—	—	—	—	—	1	5	28	1	—	34
Union	1	1	—	—	—	—	—	—	1	1	—	—	2
Volusia	17	35	12	18	—	3	15	16	44	72	285	3	404
Wakulla	—	—	—	—	—	—	—	—	—	—	3	—	3
Walton	—	—	—	—	—	—	—	—	—	—	6	—	6
Washington	—	—	—	—	—	—	—	—	—	—	4	—	4
Pub. Inst.	—	2	—	3	—	—	—	30	—	35	4	—	39
Total	508	1087	245	653	15	49	383	675	1151	2464	14330	125	18070

FIGURE 2
REPORTED TOTAL SYPHILIS AND PRIMARY AND SECONDARY SYPHILIS CASE RATES PER 100,000 POPULATION, FLORIDA, 1940-1968



UNCLASSIFIED MYCOBACTERIA RESEARCH PROGRAM

The year 1968 represented the last full year of financial support of the program by the U. S. Department of Health, Education and Welfare. During the year over 3000 isolations of Unclassified Mycobacteria (UM) were reported from the state laboratories; all isolations of strains considered potential pathogens were recorded in the register. A total of 656 individuals was identified as new excretors of potential pathogens and added to the register. This number may be contrasted with the addition in 1963 of 513 excretors of both pathogens and saprophytes. The distribution of the 1968 cases by UM Group, race and sex is indicated in Table 32.

Apart from the greater incidence of Group I cases this distribution was not significantly different from that of 1574 new excretors of both pathogens and saprophytes in 1965 suggesting that race and sex were probably less significant factors in determining the acquiring of infection than other host factors.

Additional clerical assistance made it possible to update more recent clinical information on the pre-1967 cases in the register, totaling some 5000.

Over 1700 new cases were registered since the supplementary biochemical tests became available in January, 1967. The value of these tests in indicating the potential pathogenicity of some strains within each of Runyon's Groups was already apparent. They should prove to be a tool of great value for studying the total epidemiology of these mycobacteria in the future.

During the year papers were presented at the annual conferences of the American and the Florida Thoracic Societies. A paper on Laboratory Logistics was published in the Bulletin of National Tuberculosis Association, and further papers are in preparation for the 1969 conferences.

TABLE 32
EXCRETORS OF PATHOGENIC UNCLASSIFIED MYCOBACTERIA, FLORIDA: 1968

GROUP	NUMBER					PER CENT DISTRIBUTION				
	White Male	White Female	Nonwhite Male	Nonwhite Female	Total	White Male	White Female	Nonwhite Male	Nonwhite Female	Total
I	38	14	10	4	66	5.8	2.1	1.5	0.6	10.0
II	113	58	42	15	228	17.2	8.9	6.4	2.3	34.8
IIIA	74	41	19	9	143	11.3	6.2	2.9	1.4	21.8
IIIB	8	3	1	0	12	1.2	0.5	0.1	0.0	1.8
IV	73	22	62	18	175	11.1	3.3	9.5	2.7	26.7
UNK.					32					4.9
TOTAL	306	138	134	46	656	46.6	21.0	20.4	7.0	100.0

DIVISION OF RADIOLOGICAL HEALTH

EDWIN G. WILLIAMS, M.D.
Director

It is the responsibility of this division to conduct a program devoted to the protection of people from the immediate and long-term harmful effects of radiation exposure. The continued cooperation and combined efforts of the U. S. Public Health Service (USPHS), U. S. Atomic Energy Commission (USAEC), State Board of Health (SBH) and several County Health Departments (CHDs), have continued toward the realization of this responsibility.

An agreement between the USAEC and the State of Florida was concluded on July 1, 1964. This agreement authorized the SBH to issue licenses for the use of radioactive materials to users in Florida. At that time the USAEC transferred 248 licenses to state control. On December 31, 1968, this division maintained control over 535 programs licensed to use radioactive materials. This dramatic growth is expected to continue since radioactive materials and radiation-producing devices have become an accepted element of modern society.

Training

Radiation occurs in a wide variety of forms and characteristics and can be produced in many ways from different sources. Due to the diversity and expanding applications for radiation, a continuing program for division staff training is necessary. The division staff attended 21 informational conferences and training courses during the year. As in former years the division has continued to motivate and assist in the conduct of short-term high level training programs at the two medical schools and sponsored by the USAEC and the USPHS. One such course was conducted during 1968 at the University of Florida.

The staff continued to promote and assist the Florida Chapter of the Health Physics Society. The Health Physics Society is an organization of international scope composed of professionals from the scientific disciplines whose goal is the protection of man and his environment from unwarranted radiation exposure. An objective of the Florida chapter is to promote professional and public understanding of the need for radiation protection. A member of the division staff served as chapter president for 1968.

Specific effort is devoted to encouragement and assistance to local health units in establishing proficiencies and in sharing certain responsibilities under the "Agreement" with the USAEC. Three counties have reached this degree of proficiency and several more are making substantial progress. One of the three has temporarily suspended activity at this level due to the transfer of one of its personnel to SBH headquarters in Jacksonville.

The demand for information from the public concerning radiological health has continued to increase. At the invitation of radiological technologists' societies in Tallahassee and Orlando, programs were presented concerning radiation protection.

X-ray technologists' schools and junior colleges and the universities continue to ask for presentation of programs from this division.

Two television programs utilizing the facilities of WFGA in Jacksonville were presented.

An exhibit entitled "Safety in Radiation Control" was developed and shown at the Seventh Annual Industrial Safety Conference, sponsored by the Florida Industrial Commission. This exhibit was a pictorial review demonstrating radiation protection safety features.

Direct communications between this division and local health units helped in handling the widespread concern about X-rays from color television. Television repair personnel, sales and supply outlets and the general public looked to the local health units and this division for information regarding this problem.

The health education activities of this division continue to move forward in the hope of maintaining a balance with the rapid growth of ionizing and non-ionizing radiation users in the state.

Radioactive Materials Licensing

Several hundred thousand curies of radioactive materials are presently authorized for use in Florida by 535 separate license documents. This number includes 258 medical, 167 industrial, 27 academic, 64 civil defense, six special nuclear material, three source material, and 10 nuclear service facilities. In 1968, 69 new specific licenses were issued. In addition to specific licenses applications of radioactive material, approximately 6000 radiation sources under general license are in use in Florida.

Registration of Radiation-Producing Machines

Under the authority of the Florida Nuclear Code, the "Rules and Regulations for Control of Radiation Hazards" stipulate that the owner or person having possession of radiation-producing machine(s) shall register such machine(s) every two years. In 1968, the third regular biennial registration of all machines was accomplished. This program is now computer oriented and assisted by the Division of Data Processing. To date 9363 radiation-producing machines located in 5044 installations have been registered. This represents an increase of 1246 machines over 1967 levels. A summary by category of users of these machines is presented in Table 33.

The steady growth in the use of radiation-producing machines is evidenced by the rising totals of such machines since the initial registration in 1964. In 1965 there were 6300 machines; in 1966 there were 7697; in 1967 there were 8117; and in 1968, 9363. This represents an increase of 48.6 per cent for the period.

The division continued to operate film badge personnel monitoring service for state and CHD personnel occupationally exposed to radiation. During 1968 an average of 220 persons per month utilized the film badge services.

Facility Inspection

X-ray machine inspection and consultation aided by CHD personnel continued. A total of 504 radiation-producing machines were inspected in 313 installations. A total of 259 recommendations were made to reduce unnecessary radiation exposure. A summary of the X-ray survey and consultation program activities is presented in Table 34.

A total of 104 radioactive material licenses were inspected. A concentrated effort was made to schedule those facilities which had not been inspected previously.

Environmental Surveillance

Environmental surveillance has become resolved into two differing functions. Watchfulness continues over radioactive materials whose source is atmospheric testing of nuclear weapons. Red China's detonation of such a weapon in December of 1968 is clear indication that we may expect continued contamination of the biosphere from such sources. The United States is also continuing an active program of underground testing at the Nevada Test Site which requires that monitoring be continued in the event that unplanned releases occur. To serve this alerting function, the division continued to operate the Florida Radiation Surveillance Network (FRSN) stations for air and precipitation monitoring located in Pensacola, Tallahassee, St. Petersburg, and Orlando, through the cooperation and assistance of the CHDs. Two additional stations of the air and precipitation monitoring network located in Jacksonville and Miami are units of the USPHS national network. The FRSN for milk continued operation through the cooperation and assistance of CHDs and the SBH Laboratories at Pensacola, Tallahassee, Jacksonville, Orlando, Tampa, West Palm Beach and Miami. The USPHS has a national milk network and a national total diet network both operated by the Hillsborough CHD with division cooperation. Stations of the FRSN are operated at Titusville, Cocoa and Melbourne by the Brevard CHD. These stations serve also as a part of the Cape Kennedy Off-Site Radiation Surveillance Program. A total of 996 air samples, 125 precipitation samples and 60 milk samples were collected as a part of this program. Levels of radioactivity were minimal but the network served its primary alerting function well.

A second, and increasingly important function of surveillance, is in monitoring in the vicinity of large industrial users of radioactive materials. Florida has one operating nuclear reactor located at the University of Florida, Gainesville. One power reactor is under construction (and a second authorized) by the Florida Power and Light Company at its Turkey Point installation in Dade County. These two reactors have a design capacity of 1448 million watts electrical. Another power reactor is under construction (with a second authorized) by Florida Power Corporation at its Crystal River facility in Citrus County. These reactors have a design capacity of 1710 million watts electrical. The large inventories of radioactive fission products which accumulate in large power reactors make environmental surveillance around such installations mandatory. Further, there is a sharp projected increase in use of radioactive materials in connection with the space program operating from the Cape Kennedy complex.

A program of monitoring was conducted in the environs of the Turkey Point Reactor Site in cooperation with the USPHS and the Dade Department of Public Health. Ten active sampling stations were maintained by the division. There were 143 samples of various environmental media collected and analyzed during 1968. Planning was completed for implementation of a sampling program of similar size and scope at the Crystal River site. The purpose of this preoperational sampling of these power reactors is to establish base line data of the area's radiological characteristics against which post-operational levels may be compared.

The Cape Kennedy Off-Site Radiation Surveillance Program continued on a routine schedule. Through the cooperation of the USPHS, National Aeronautics and Space Administration, several CHDs, SBH and others, the SBH Radiological Laboratory performed analyses on 184 of the samples collected with a similar number of analyses performed by the Wright-Patterson Air Force Base Laboratory and by the USPHS Southeastern Radiological Health Laboratory.

Instrumentation and Maintenance

The division now has the capability of counting and analyzing field samples obtained during radiation inspections and surveys. This was made possible by the space provided in the division's new quarters so that necessary instrumentation could be available for use at any time. Space was also provided for proper storage of survey instruments used in the field.

This segment of the division supports all the other radiological health activities. Commercial services are continuing to be utilized for instrument maintenance and calibration.

Emergency Planning

The division continued to maintain the operational readiness of the Florida Radiological Emergency Network.

New Activities

Enactment of the Radiation Control for Health and Safety Act of 1968 (Public Law 90-602) establishes certain authority at the federal level for control of radiation from electronic products, and further provides for extensive participation by the state. In cooperation with the USPHS, the division and CHDs surveyed 428 devices subject to the provisions of PL 90-602, such as microwave ovens, radar, diathermy, particle accelerators, and color television receivers. Enabling legislation for the extension of the present radiological health program to include lasers and other non-ionizing radiations was requested.

TABLE 33
SOURCES OF RADIATION, BY COUNTY, FLORIDA, 1968

COUNTY	Radiation-Producing Machines	Radioactive Materials Licenses
Dade	2136	84
Broward	814	25
Pinellas	753	35
Duval	684	35
Palm Beach	625	23
Hillsborough	609	29
Orange	566	45
Polk	267	30
Brevard	265	17
Volusia	234	4
Escambia	188	20
Sarasota	186	8
Alachua	174	17
Leon	138	25
53 Other Counties	1724	142
TOTAL	9363	539

TABLE 34
SUMMARY OF X-RAY SURVEYS AND CONSULTATIONS
FLORIDA, 1968

Type of Installation	Installation	Tube Heads	Beam Corrections Needed	Filter Corrections Needed	Recommendations for Reducing Personnel Exposure
Medical	62	78	27	14	60
Dental	152	270	13	24	128
Hospital	22	70	5	7	23
Chiropractic	17	17	3	4	. . .
Veterinarian	9	9	3	5	9
Osteopathic	10	11	10	3	5
Podiatric	13	13	5	9	14
Industrial	4	6	. . .	. . .	3
Other	24	30	6	4	17
Total	313	504	72	70	259

DIVISION OF TUBERCULOSIS CONTROL

DWIGHT J. WHARTON, M.D.
Director

The function of this division is to work with county health departments (CHD) with the objective of eradicating tuberculosis. The natural course of this disease makes it resistant to eradication. One million persons in the state are infected with M. tuberculosis and more than 75 per cent of all new cases each year come from this group. About 100,000 residents have had tuberculosis in the past. Some 15,000 contacts of new active cases are identified each year. All of these need regular examinations.

This division assists CHDs by taking, processing and interpreting diagnostic and survey X-rays, counseling with CHD personnel and providing drugs for treatment or prophylaxis.

The special tuberculosis control program was continued with a budget of $868,488 for the year. A total of 106 personnel was employed on this program, of which six were physicians and 53 nurses, 43 clerical and 10 technical.

Morbidity and Mortality

Table 35 gives data on morbidity and mortality for the past ten years. There were 1620 new active cases of tuberculosis reported for the year, a case rate of 26.1. In addition, 135 old cases reactivated and 110 active cases came from other states, giving a total of 1865 active cases. There were 366 non-active cases reported for the first time and 131 non-active cases moved here from other states. The total of active and non-active cases reported for the year was 2362.

Contacts of new cases of active tuberculosis are a fruitful source of additonal cases. CHDs identified 14,488 contacts of the 1620 active cases and examined 13,432 of them, finding 137 with active disease. An additional 2373 tuberculin reactors were given chemoprophylaxis.

The state 70mm X-ray units made fewer examinations than in 1967 (172,791 compared to 200,731) finding more cases of tuberculosis (112 compared to 86 in 1967). CHDs and state units made 800,812 examinations with 7,498 suspicious of tuberculosis. Follow-up examinations resulted in detection of 357 new cases and 1310 remaining under study. Other findings were 1002 suspicious of tumor, 2244 showing cardio-vascular abnormalities, other pathology in 8005 and 952 with non-active tuberculosis.

Clinic Services

Treatment clinics are held in 55 locations throughout the state, all with a physician in attendance. Seven physicians in the first six months and six in the last six months were employed on a full time basis for these clinics. Some clinics were attended by physicians employed on a fee basis. Drugs for treatment are provided by the State Board of Health.

A mobile 14x17 X-ray unit continues to provide services for 37 CHDs which do not have such facilities. The unit makes visits to CHDs on a regularly scheduled basis at intervals of one to three months depending on need. It made 7388 chest X-ray examinations this year.

Activities of CHDs

Table 26, Section C, gives data on major tuberculosis control activities of CHDs. New this year are data on persons on chemoprophylaxis. Last year 7851 persons were started on prophylactic drug therapy.

The workload of CHDs increases each year in treatment and examinations of tuberculosis patients. In fiscal 1968 the average length of patient stay in tuberculosis hospitals was 171 days compared to 224 in the previous year. This additional 53 days care for each patient by CHDs means more visits to clinics, more X-ray and sputum examinations and more drugs. Ten per cent of the patients recorded in the central case register are hospitalized and 90 per cent have care and supervision by CHDs.

CHD tuberculin testing, principally in schools, increased from 148,000 to approximately 200,000.

Central Case Register

Tables 39 and 40 give data on the status of the central case register. Active and quiescent cases remain in the register while inactive cases are removed after being inactive for three years. More than 2,000 cases were added to the register during the year. Some 80,000 laboratory sputum examinations reports and more than 20,000 X-ray reports are reviewed and case register entries made when necessary.

TABLE 35
NEW ACTIVE TUBERCULOSIS CASES AND DEATHS WITH RATE PER 100,000 POPULATION, FLORIDA 1959-1968

YEAR	CASES		DEATHS					
			TOTAL		WHITE		NONWHITE	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
1968*	1620	26.1	204	3.3	126	2.5	74	7.1
1967	1601	26.3	207	3.4	121	2.4	86	8.1
1966	1573	26.5	213	3.6	125	2.6	88	8.4
1965	1521	26.2	211	3.6	126	2.6	85	8.3
1964	1407	24.7	212	3.8	133	2.9	79	7.9
1963	1563	28.3	242	4.4	151	3.3	91	9.2
1962	1439	26.7	216	4.0	136	3.1	80	8.3
1961	1359	26.1	217	4.2	146	3.4	75	8.1
1960	1295	25.9	205	4.1	128	3.1	78	8.7
1959	1271	26.5	233	4.9	161	4.3	65	7.4

*Provisional

TABLE 36
REPORTED ACTIVE CASES OF TUBERCULOSIS BY STAGE OF DISEASE, RACE, SEX, AGE, AND SOURCE OF REPORT FLORIDA, 1967 and 1968

Stage of Disease, Race and Sex, Age, and Source of Report	1968		1967	
	Case	Per Cent	Case	Per Cent
TOTAL ACTIVE CASES	1620	100.0	1601	100.0
STAGE OF DISEASE				
Primary	125	7.7	184	11.5
Minimal	247	15.2	230	14.4
Moderately advanced	619	38.2	627	39.2
Far advanced	464	28.7	421	26.3
Non-Pulmonary	120	7.4	103	6.4
Not stated	45	2.8	36	2.2
RACE AND SEX				
White male	628	38.7	566	35.4
White female	249	15.4	243	15.2
Nonwhite male	515	31.8	536	33.4
Nonwhite female	227	14.0	254	15.9
Not stated	1	.1	2	.1
AGE				
Under 5	71	4.4	93	5.8
5-14	59	3.6	92	5.7
15-24	101	6.2	105	6.6
25-44	485	30.0	474	29.6
45-64	621	38.3	558	34.9
65 and over	282	17.4	273	17.1
Not stated	1	.1	6	.3
SOURCE OF REPORT				
Health departments	661	40.8	902	56.4
Private physicians	427	26.4	369	23.1
General hospitals	388	23.9	220	13.7
Death certificates	16	1.0	17	1.0
Other states	6	.4	12	.7
*Other	122	7.5	81	5.1

*VAH, Armed Forces, Prisons, etc.

TABLE 37
RESULTS OF 70MM SCREENING, FLORIDA, 1967-68

SCREENING UNITS	70MM X RAYS		FOLLOW-UP STUDIES						
			Findings			New Cases Found by Stage			
	Total X rays	Suspected Tuberculosis	Percent Follow-up	New Cases	Diagnosis Reserved	Minimal	Moderately Advanced	Far Advanced	*Other
TOTALS	800,812	7,498	98.2	357	1,310	71	166	94	26
Alachua CHD	9,684	35	100.0	3	3	1	0	1	1
Alachua Survey	3,280	12	100.0	1	0	1	0	0	0
Bay Survey	10,684	70	100.0	4	3	0	2	1	1
Bradford Survey	2,608	29	100.0	3	5	0	1	1	1
Brevard Survey	24,937	116	100.0	11	3	4	6	1	0
Broward CHD	124,242	1,404	98.4	36	6	2	24	8	2
Broward Survey	2,939	29	93.1	2	0	0	1	1	0
Calhoun Survey	1,280	11	100.0	0	4	0	0	0	0
Citrus CHD and Assn.	3,443	20	100.0	1	9	0	0	0	1
Citrus Survey	2,720	14	100.0	0	4	0	0	0	0
Clay Survey	4,061	36	100.0	4	8	4	0	0	0
Collier Survey	6,853	45	97.8	2	10	0	0	2	0
Columbia Survey	107	1	100.0	0	0	0	0	0	0
Dade CHD and Assn.	140,577	2,912	98.4	54	936	5	33	14	2
Dade Survey	4,684	52	98.1	11	0	0	4	4	3
De Soto Survey	2,350	20	100.0	2	1	1	0	1	0
Dixie Survey	113	0	100.0	0	0	0	0	0	0
Duval CHD	8,097	37	100.0	4	3	3	1	0	0
Duval-Jax CBH	30,712	157	98.7	23	27	4	12	7	0
Escambia CHD	20,155	92	95.7	19	0	4	8	5	2
Flagler Survey	96	0	100.0	0	0	0	0	0	0
Gadsden Survey	4,553	30	100.0	0	6	0	0	0	0
Glades Survey	1,394	4	100.0	0	0	0	0	0	0
Hardee Survey	1,416	14	92.9	3	0	0	2	0	1
Hendry Survey	2,969	21	95.2	2	9	1	0	0	1
Hernando Survey	1,815	6	83.3	0	0	0	0	0	0
Hillsborough CHD & Assn.	70,228	273	96.7	30	2	12	9	9	0
Holmes Survey	2,027	18	83.3	2	1	0	1	1	0
Indian River Survey	1,230	11	100.0	1	3	1	0	0	0
Jackson Survey	7,627	47	100.0	5	4	2	2	1	0
Jefferson Survey	1,096	8	75.0	0	3	0	0	0	0
Lake CHD and Assn.	2,510	18	100.0	2	1	0	2	0	0
Lake Survey	7,739	51	100.0	4	8	3	1	0	0
Lee CHD	10,004	62	91.9	4	4	0	1	3	0
Lee Survey	2,850	23	95.7	5	3	0	4	1	0
Leon CHD	7,358	50	100.0	4	2	2	1	0	1
Levy CHD and Assn.	1,111	7	100.0	0	0	0	0	0	0
Levy Survey	2,666	21	100.0	3	1	2	1	0	0
Liberty Survey	429	5	100.0	0	0	0	0	0	0
Madison Survey	242	2	100.0	0	0	0	0	0	0
Manatee CHD	15,571	119	99.2	13	27	1	5	5	2
Manatee Survey	8,472	61	100.0	5	4	0	4	1	0
Marion CHD and Assn.	7,139	35	100.0	3	5	1	0	2	0
Monroe CHD and Assn.	4,658	16	100.0	1	3	0	0	0	1
Nassau Survey	1,052	5	100.0	0	0	0	0	0	0
Okaloosa Survey	7,143	52	100.0	2	7	1	1	0	0
Okeechobee Survey	829	7	100.0	0	1	0	0	0	0
Orange CHD and Assn.	51,411	173	99.0	14	5	0	7	5	2
Osceola CHD and Assn.	275	1	100.0	0	0	0	0	0	0
Osceola Survey	387	7	100.0	0	3	0	0	0	0

*Other tbc, Miliary, Primary, stage undet.

TABLE 37 (Continued)

RESULTS OF 70MM SCREENING, FLORIDA, 1967-68

SCREENING UNITS	70MM X RAYS		FOLLOW-UP STUDIES						
			Findings			New Cases Found by Stage			
	Total X rays	Suspected Tuberculosis	Percent Follow-up	New Cases	Diagnosis Reserved	Minimal	Moderately Advanced	Far Advanced	*Other
TOTALS	800,812	7,498	98.2	357	1,310	71	166	94	26
Palm Beach CHD	22,280	103	96.1	7	9	3	0	2	2
Palm Beach Survey	12,448	112	89.2	9	28	1	7	1	0
Pasco CHD and Assn.	2,469	18	100.0	1	2	0	0	1	0
Pasco Survey	1,375	9	100.0	1	2	0	1	0	0
Pinellas CHD and Assn.	46,000	308	98.7	6	42	0	3	3	0
Polk CHD	30,562	121	100.0	7	46	1	3	3	0
Putnam CHD	1,401	2	100.0	0	1	0	0	0	0
St. Johns Survey	455	1	100.0	0	0	0	0	0	0
St. Lucie CHD	255	2	100.0	0	0	0	0	0	0
St. Lucie Survey	8,729	83	92.8	7	19	1	4	1	1
Sarasota CHD	5,654	38	81.6	2	6	0	0	2	0
Seminole CHD and Assn.	10,501	41	100.0	11	5	5	1	5	0
Seminole Survey	1,986	11	100.0	2	3	1	0	1	0
Sumter CHD and Assn.	1,724	6	100.0	0	1	0	0	0	0
Suwannee Survey	3,279	41	92.7	3	8	0	2	1	0
Taylor Survey	251	0	100.0	0	0	0	0	0	0
Union Survey	846	5	80.0	1	2	0	1	0	0
Volusia Survey	1,818	5	100.0	0	1	0	0	0	0
Walton Survey	2,840	14	100.0	3	3	0	3	0	0
Washington Survey	622	11	100.0	0	2	0	0	0	0
Fla. St. Prison Survey	4,444	48	100.0	1	2	0	0	0	1
Fla. St. Hospitals Survey	11,050	280	100.0	13	4	4	8	0	1

*Other tbc, Miliary, Primary, stage undet.

TABLE 38
ANALYSIS OF STATE X-RAY SURVEY UNITS
RESULTS, 1967 – 1968

RACE AND SEX AND AGE	70MM X-RAYS		14 X 17 X-RAY FOLLOW-UP						
			FINDINGS		NEW CASES BY STAGE				
	TOTAL X-RAYS	SUSPECTED TUBERCULOSIS	NEW CASES	DIAGNOSIS RESERVED	MINIMAL	MODERATELY ADVANCED	FAR ADVANCED	OTHER	*NEW CASE RATE
TOTAL	172791	1463	112	171	28	55	18	11	64.8
RACE AND SEX									
White Male	62896	698	45	83	12	21	8	4	71.5
White Female	69980	342	12	46	4	5	2	1	17.1
Nonwhite Male	20044	298	41	32	6	22	7	6	204.5
Nonwhite Female	18661	117	14	10	6	7	1	0	75.0
Not Stated	1210	8	0	0	0	0	0	0	0.0
AGE									
0-24	23672	48	9	7	3	3	2	1	38.2
25-34	32312	96	12	15	4	6	1	1	37.1
35-44	33349	178	22	21	5	12	3	2	66.1
45-54	33522	271	31	29	5	12	10	4	92.5
55-64	25746	385	23	49	7	14	0	2	89.3
65 and over	22808	471	15	50	4	8	2	1	65.8
Not Stated	1382	14	0	0	0	0	0	0	0.0

*Rate per 100,000 satisfactory 70mm x-rays.

TABLE 39
TUBERCULOSIS CASES IN CENTRAL REGISTER, BY COUNTY, STAGE OF DISEASE AND ACTIVITY, FLORIDA, 1968

COUNTY	Total Cases	Pulmonary Tuberculosis				Non-pulmonary	Active Cases			
								At Home by Sputum Status		
		Active	Quiescent	Inactive	Primary		In Hospital	Positive	Negative	None 1968
STATE	6516	1573	1161	3413	225	144	666	218	662	27
Alachua	84	18	20	41	4	1	7	4	7	—
Baker	17	4	3	8	1	1	2	—	2	—
Bay	38	8	6	24	—	—	4	—	4	—
Bradford	24	8	6	8	1	1	2	3	3	—
Brevard	119	28	18	63	7	3	8	4	15	1
Broward	468	111	68	261	20	8	52	16	41	2
Calhoun	12	2	2	7	1	—	—	1	1	—
Charlotte	15	3	6	6	—	—	—	1	2	—
Citrus	10	1	6	3	—	—	—	1	—	—
Clay	24	11	2	10	—	1	3	2	6	—
Collier	74	16	12	36	8	2	8	2	5	1
Columbia	25	6	4	15	—	—	4	1	1	—
Dade	1030	275	44	613	54	44	123	46	103	3
De Soto	26	2	8	13	3	—	—	—	2	—
Dixie	11	1	3	6	1	—	—	—	1	—
Duval	668	169	136	319	30	14	73	30	64	2
Escambia	199	37	44	113	3	2	17	3	16	1
Flagler	9	7	—	1	—	1	3	—	4	—
Franklin	10	1	2	6	1	—	—	—	1	—
Gadsden	37	9	11	17	—	—	4	1	4	—
Gilchrist	1	—	1	—	—	—	—	—	—	—
Glades	10	6	1	3	—	—	4	—	1	1
Gulf	10	1	1	8	—	—	—	—	1	—
Hamilton	11	2	4	5	—	—	2	—	—	—
Hardee	23	8	7	7	—	1	2	1	5	—
Hendry	19	1	3	13	1	1	—	—	1	—
Hernando	12	5	2	5	—	—	—	—	5	—
Highlands	38	6	10	20	—	2	2	1	3	—
Hillsborough	639	111	136	373	7	12	35	4	72	—
Holmes	17	3	3	10	1	—	1	—	2	—
Indian River	62	13	10	37	1	1	4	1	8	—
Jackson	45	5	12	25	2	1	2	2	—	1
Jefferson	8	3	3	2	—	—	3	—	—	—
Lafayette	5	—	2	3	—	—	—	—	—	—
Lake	79	18	11	42	6	2	9	2	6	1
Lee	106	23	12	66	3	2	7	2	14	—
Leon	56	12	14	28	2	—	3	1	8	—
Levy	22	4	4	14	—	—	3	—	1	—
Liberty	4	1	—	3	—	—	—	—	1	—
Madison	19	3	4	12	—	—	2	1	—	—
Manatee	101	24	20	44	12	1	14	1	9	—
Marion	79	17	20	40	1	1	10	1	6	—
Martin	39	11	8	18	—	2	7	1	3	—
Monroe	33	6	8	19	—	—	3	1	2	—
Nassau	17	6	2	9	—	—	5	—	1	—
Okaloosa	37	8	5	22	1	1	4	1	3	—
Okeechobee	14	4	2	7	1	—	1	1	2	—
Orange	295	82	52	134	22	5	34	11	34	3
Osceola	15	3	1	11	—	—	—	1	2	—
Palm Beach	464	127	93	215	18	11	50	13	64	—
Pasco	60	13	19	28	—	—	7	1	5	—
Pinellas	372	110	78	172	5	7	38	26	41	5
Polk	244	39	57	139	3	6	18	9	9	3
Putnam	44	18	14	11	1	—	10	—	8	—
St. Johns	39	8	9	18	2	2	5	1	2	—
St. Lucie	109	41	26	40	—	2	20	5	15	1
Santa Rosa	17	1	4	12	—	—	—	—	1	—
Sarasota	78	21	11	44	1	1	5	6	9	1
Seminole	71	12	19	39	—	1	3	1	8	—
Sumter	23	8	7	7	—	1	4	1	3	—
Suwannee	18	4	6	7	1	—	2	2	—	1
Taylor	15	1	6	8	—	—	1	—	—	—
Union	2	1	1	—	—	—	—	—	1	—
Volusia	173	46	40	84	—	3	21	5	20	—
Wakulla	4	1	1	2	—	—	—	—	1	—
Walton	17	5	5	7	—	—	2	—	3	—
Washington	10	1	3	6	—	—	—	1	—	—
Florida Prisons	40	13	3	24	—	—	13	—	—	—

TABLE 40
TUBERCULOSIS CASE REGISTER STATISTICS, FLORIDA, 1964 – 1968

Tuberculosis Cases by Activity, Location and Sputum Status	Number of Cases					Per Cent Distribution				
	1968	1967	1966	1965	1964	1968	1967	1966	1965	1964
TOTAL CASES IN REGISTER	6516	7711	7165	7195	7502	100.0	100.0	100.0	100.0	100.0
Active pulmonary	1573	1489	1489	1449	1552	24.1	19.3	20.8	20.1	20.7
Quiescent pulmonary	1161	1129	1029	954	987	17.9	14.6	14.4	13.2	13.2
Inactive pulmonary	3413	4661	4226	4378	4525	52.3	60.5	59.0	61.0	60.3
Primary pulmonary	225	301	298	291	304	3.5	3.9	4.1	4.0	4.0
Non-pulmonary	144	131	123	123	134	2.2	1.7	1.7	1.7	1.8
ACTIVE PULMONARY	1573	1489	1489	1449	1552	100.0	100.0	100.0	100.0	100.0
Hospitalized	666	648	763	860	1026	42.4	43.6	51.2	59.3	66.1
At home	907	841	726	589	526	57.6	56.4	48.8	40.7	33.9
ACTIVE CASES AT HOME	907	841	726	589	526	100.0	100.0	100.0	100.0	100.0
Positive sputum	218	247	210	212	198	24.0	29.4	28.9	36.0	37.6
Negative sputum	662	503	421	294	256	73.0	59.8	58.0	49.9	48.7
Undetermined sputum	27	91	95	83	72	3.0	10.8	13.1	14.1	13.7

DIVISION OF VETERINARY PUBLIC HEALTH

JAMES B. NICHOLS, D.V.M., M.S.
Director

The animal diseases transmissible to man, commonly referred to as zoonoses, continued to present challenging problems during 1968. The division is concerned with the detection of human diseases of animal origin, study of modes of transmission, surveillance of infectious disease reservoirs, and the development of appropriate preventive and control measures.

To accomplish this, the division maintains an Animal Morbidity Reporting System, and a constant liaison with private veterinarians and county health departments (CHD). An excellent working relationship is also maintained with the State Department of Agriculture (SDA), the U. S. Department of Agriculture (USDA), the National Communicable Disease Center (NCDC), the Florida Game and Fresh Water Fish Commission, and the University of Florida. In addition, the division participated in training courses for CHD sanitarians, and subjects of public health importance were presented to veterinary groups, animal control officers, and others either associated with or interested in the zoonoses.

The division director is assisted by a biologist and two milk sanitation consultants. This relatively small staff receives excellent cooperation from private veterinarians and many different agencies and organizations and is therefore able to successfully accomplish the rather extensive program objectives.

Arthropod-borne Encephalitis

Even though less extensive surveillance was programmed for 1968 because of budgetary limitations, the animal sentinel system was continued wherever possible with a view of detecting unusual arbovirus activity.

Eastern equine encephalitis (EE) was considered to be about average when compared with recent years. Private veterinarians reported 41 cases in horses, most of which occurred during July and August. As has been frequently noted in the past, a relatively large number of the cases were observed in central and northeast counties. A State Board of Health (SBH) owned sentinel chicken flock in the Daytona Beach area and another in the Jacksonville area were bled every three weeks during the summer months to aid in detecting any early build up of virus. There was one conversion to EE during October in the Daytona flock. Privately owned backyard chicken flocks were used again as sentinels to help determine whether arboviruses were circulating at other points in the state during the past summer. A total of 86 sera were examined and no significant reactivity was noted for either EE, western equine encephalitis (WE), or St. Louis encephalitis (SLE).

Aliquots of 119 horse serum specimens were obtained from the SDA and screened for past evidence of Venezuelan equine encephalitis (VE) and SLE activity. Some noteworthy titers for VE were observed and in a number of instances additional blood samples were collected and more definitive tests conducted. Considerably more study is needed in both the field and laboratory before VE serologic test results can be properly interpreted. No significant SLE titers were observed in these specimens.

During a special study conducted in the Homestead area following a human case of VE, blood specimens were collected from horses and dogs. The test results indicated little VE reactivity in the horses, but several relatively high titers were noted in the dogs. However, 83 per cent of the horse serum specimens showed reactivity when tested against SLE antigen. Further study is considered essential in order to better define the possible areas of circulation of SLE virus in south Dade county.

A description of the surveillance and studies involving wildlife is contained in the section pertaining to the activities of the wildlife biologist.

Leptospirosis

In 1968, Florida had more reported human cases of leptospirosis than any other state, with a total of 18. This is greater than a two-fold increase over 1967. Serologic tests indicated the infective serotype was *L. canicola* in eight cases, *L. icterohaemorrhagiae* in three cases and *L. icterohaemorrhagiae-canicola* in two cases, with one case each attributed to *L. hyos* and *L. grippotyphosa*. The serotype was not determined in three other cases. As in previous years, most of the cases occurred between June and September. The cases were distributed in the following counties: Dade, seven; Bay and

Alachua, two each; and Duval, Orange, DeSoto, Hendry, Broward, Escambia, and Volusia, one each. In all instances where surveillance reports were complete, dogs, rats, wildlife or water were mentioned as a possible source of infection. Three of the eight *L. canicola* cases mentioned wading in swamps or bays just prior to their illness. The patient with *L. grippotyphosa* waded in a swamp while hunting squirrels, however, serologic and isolation studies of squirrels from this area showed no evidence of infection. Epidemiologic investigation of two cases of *L. icterohaemorrhagiae* in brothers revealed the family dog, a burro and rats on the premises were also infected with the same serotype.

Animal morbidity reports from private veterinarians and the SDA Animal Disease Diagnostic laboratory showed 184 cases in large animals and 300 cases in small animals. When compared to last year these figures represent an increase in large animals and a decrease in small animals.

Since past experience has indicated that a high per cent of the reported human cases came in frequent contact with dogs, a study was conducted in Escambia county in an effort to determine if there were any subclinical or inapparent human infections in persons who had been closely associated with infected dogs. This was a short term project for a veterinary summer student assigned to the Escambia CHD. With local private veterinarians cooperating, specimens of dog blood were collected and examined, with blood specimens also collected and examined from the human contacts. No evidence of human infection was detected. The period of study was, however, short and it was learned that future projects must cover a longer period of time in order to be meaningful.

More than 130 wild animals trapped during a rabies study in Manatee and Sarasota counties were examined for evidence of leptospirosis by serologic tests. The results revealed that 28 per cent of the raccoons, 11 per cent of the opossums, and 38 per cent of the foxes were infected. The large numbers of these animals found throughout the state, along with the relatively high rate of infection, suggests that they are more than incidentally involved in the transmission cycle of this disease.

The relatively high rate of leptospirosis infection, both in the domestic and wild animal populations in the state, warrants continued surveillance of this widespread zoonotic disease.

Rabies

The incidence of rabies rose significantly in 1968 with a total of 112 cases compared to 82 for 1967. This change was accounted for largely by an increase in raccoon rabies throughout the state. The raccoon rabies epizootic in Manatee county that caused much concern last year, gained momentum early in 1968. During the summer the division director requested assistance from NCDC in investigating this epizootic. In September, a team from the Rabies Ecology Sub-unit trapped 175 wild animals in Manatee and Sarasota counties. Serologic tests revealed that 8.3 per cent of the animals captured in Manatee county and 15.6 per cent of those obtained in Sarasota county were reactive. Final results of the study will be available at a later date. Of all bats submitted throughout the state, 11 per cent were positive. These findings are consistent with those of previous years. The yellow bat *Dasypterus floridanus*, accounted for nearly 50 per cent of all bats examined. Eleven of the 18 positives were of this species. It is expected that rabid wild animals will be a public health problem during the foreseeable future. The matter of control by population reduction has questionable value, and cost without special legislative action would be prohibitive. Every effort has been made and will continue to be made to warn the public about the dangers involved whenever contact is made with a wild animal.

As in recent years, the number of rabid dogs and cats remained quite low. While control measures are generally acceptable in most counties, efforts are continually made through meetings, educational programs and personal contact to bring about improvement where needed. The reported number of animal bites which has passed the 30,000 mark annually has been studied carefully with a view of focusing more public attention to this growing problem. In addition to having great public health significance, the many thousands of investigations involving the biting animals is quite costly. It is felt that better animal control is necessary, and animal wardens, CHD personnel and others are being encouraged to accomplish this by educational campaigns, updated ordinances when appropriate, and better enforcement. Considerably more effort in this area is needed.

Quantities of rabies vaccine sufficient to provide 503 14-dose courses of treatment for human bite victims were distributed. There were 105 of the Semple (nervous tissue) type and 398 of duck embryo origin. In addition, 153 1000-unit vials of hyper-immune serum were also distributed.

Other Zoonoses

Only three cases of human brucellosis were reported for the year, thus indicating that control programs involving animal reservoirs are quite effective. Each of the victims was associated directly or indirectly with livestock. None of the patients gave a history of raw milk consumption, and it is believed that the new state milk law requiring compulsory pasteurization is responsible for a lack of human brucellosis traceable to raw milk. The USDA reported that more than 324,000 cattle from 7146 herds were tested during the year. In this group there were 7483 reactors.

The number of tuberculosis reactors found by the USDA and the SDA in their control programs was considerably less than last year. Tests were conducted on 1077 herds having 130,132 cattle with only 61 reactors being reported.

Considerable effort was expended by the division and by CHD in attempting to determine whether recently imported pet psittacine birds were receiving the medication prescribed by the USPHS as a requirement for entry into the United States. It was determined that the program was operating improperly in many instances and that a risk to human health was involved when these birds were repeatedly admitted without the proper drug being administered for treatment against psittacosis. The shortcomings of the program along with repeated well documented cases of violation of the USPHS Foreign Quarantine Program regulations, was brought to the attention of officials of that agency. Fortunately, no human cases of psittacosis were reported although one case in a parrot was diagnosed by the central SBH laboratory.

The threat of plague (Pasteurella pestis) being introduced into Florida still exists. Reports of rabbits being imported into the state for training greyhounds was investigated. It was determined that while these animals were brought in from Texas, that they had actually been caught in New Mexico in an area where plague is endemic. Greyhound owners and trainers were warned and asked to cooperate by reporting any instance when the rabbits were infested with ectoparasites. Surveillance will continue.

Four cases of murine typhus, two in Dade county and one each in Duval and Bay counties were reported. Also, a single human case of Tularemia occurred in Hendry county.

WILDLIFE BIOLOGY

Wildlife field investigations related to human health continued throughout the year. The greatest effort was placed on arbovirus surveillance and control. A total of 824 sera from birds and mammals were collected and later tested by the central laboratory for the presence of EE, WE, VE and SLE hemagglutination-inhibition (HI) antibodies.

In July, the biologist assisted a team from the NCDC Arbovirus Ecology Unit in a survey of the wild birds in greater Miami. Approximately 500 specimens were collected and tested by serology and isolation methods for evidence of arbovirus infection. These indicated only a very low level of EE and WE activity.

A pilot project in Orlando from July to October evaluated the feasibility of pauperizing and serially bleeding flocks of mourning doves in the vicinity of selected population centers as part of the statewide arbovirus surveillance system. All 249 sera examined during this study were nonreactive when tested by the HI method against EE, WE, VE and SLE antigens.

Additional surveillance was accomplished through a cooperative study with the Southeastern Wildlife Disease Survey, University of Georgia, Athens. To date, 65 white-tailed deer sera collected from Okaloosa, Collier, and Duval counties have been HI tested for EE, WE, VE and SLE antibodies. Sera from two deer collected in Collier county showed low HI titers to VE virus. The results were subsequently confirmed in serum neutralization tests. All other sera were negative.

The Venezuelan encephalitis surveillance program was expanded this year by sampling rodent populations at 10 mile intervals along two east-west cross state transects. Hemagglutination-inhibition serologic tests on 254 small mammals indicated no recent VE activity in the areas sampled. This study was accomplished with a view of determining the northern limits of the VE virus movement from the Everglades National Park.

The report of a human case of VE prompted an ecologic survey of the Homestead area. During October and November, 236 wild rodents were collected from a variety of diverse habitats. Significant HI antibodies to VE were found in cotton rats and cotton mice trapped along a canal within the Sawgrass marsh where the patient had fished prior to her illness. High HI titers for VE were found in 75 per cent of the rodents trapped in a hammock northeast of the Everglades National Park. In other areas the rate of VE reactivity ranged between 10 and 20 per cent.

In January, 1968, the division in cooperation with the mycology section of NCDC launched a study to investigate the source of infection of a case of histoplasmosis in a spelunker from Gainesville. One of the 20 *Myotis austroriparius* bats captured in a sinkhole cave where the patient had been exposed, yielded *Histoplasma capsulatum*. The organism was also isolated from one of 23 soil samples collected in an adjoining cave. Since this fungal disease is not known to be endemic in Florida, the study was expanded in an effort to delineate the extent of natural occurring infection of *H. capsulatum* in Chiroptera throughout the state. Bats were mist netted and captured from caves, attics, sewers and boat houses in the following counties: Alachua, Jackson, Marion, Citrus, Hernando, Hillsborough and Orange. *Histoplasma capsulatum* was isolated from 48 per cent of the 170 *M. austroriparius* examined. One hundred and ninety three bats of other species were negative. The small number of reported clinical cases of histoplasmosis in Florida may be related to the cave dwelling habits of the myotis bats in Florida.

Since human infections can occur after exposure to infectious spores in sinkhole caves harboring colonies of myotis bats, spelunking groups are being advised accordingly. Histoplasmosis studies of non-cave dwelling colonial bats will be emphasized during 1969.

MILK SANITATION

Fundamentals of good quality milk production and processing continued to be emphasized by the milk consultants. Changes in technology were continually analyzed and fitted into the framework of good sanitation practices. The milk consultants worked with local sanitarians searching out problem areas involving advanced engineering developments and arriving at satisfactory conclusions.

One development which emphasizes the value of maintaining high quality dairy products was the advent of various dairy substitutes. Educational campaigns are being planned to aid the public in developing a complete understanding of the differences, nutritional and otherwise, between milk and substitutes or imitation products. Standards of sanitation which will secure adequate protection for the consumer's health must be established and enforced.

In order to be assured that high quality milk will be delivered to processing plants, the consultants continued to concentrate on the activities necessary to attain this objective. Proper use of cowside California Mastitis Test techniques in detecting diseased quarters, expansion of laboratory screening tests for abnormal milk, continued use of sediment testing on producer farms, detection and correction of unsafe water supplies - have all been given a greater emphasis in working with CHD sanitarians. A Quality Milk Council was organized statewide. Participants include personnel from the SBH, SDA, University of Florida, and various dairy representatives. These regulatory and educational features are successfully implementing the routine inspection activities in the production of high quality milk.

Since rather large amounts of raw milk must be shipped into the state during times of production shortage, the consultants continued to work with USPHS personnel, industry groups and regulatory agencies on a national basis. This aids in securing milk of good quality from out-of-state sources, and is definitely a worthwhile effort.

The need for continuous "in-service" training was stressed at every opportunity. In cooperation with the SDA a short course (four days) was organized for a study program on the Operation and Testing of Pasteurization Equipment. It was well attended. Demonstrations and equipment tests were conducted by USPHS personnel. Correct interpretation of items of sanitation was emphasized for greater uniformity of enforcement. In addition, the consultants participated in conferences and workshops throughout the state for the purpose of training both regulatory and industry employees.

The division's Central Milk Registry continues to be a valuable source of information for evaluating control programs. Results of inspections by the consultants and local sanitarians are shown along with laboratory analyses of samples collected from producers and processors. Adequacy of school milk sampling programs is revealed through the Registry. In order for local school boards to determine that the quality standards of milk being purchased are in contractual compliance, a continuing sampling program is being stressed to CHD sanitarians, and laboratory analyses are subsequently made available to school officials.

Contributing factors having immeasurable value to the preservation of high sanitation levels by both producing farms and processing plants are the sanitation compliance surveys and check ratings made by the milk consultants. Maintenance of a 90 per cent compliance rating results in eligibility of producer associations and processing plants to have USPHS listing and to sell dairy products to common carriers, military bases, hospitals, and other related markets. It also enables them to participate in interstate markets when this becomes necessary to dispose of surpluses. Another phase of the survey and rating activities just developing involves plants manufacturing single service milk containers made from both paper and polyethylene plastic. Establishments meeting the necessary requirements are also given USPHS listings, thus enabling them to qualify for national markets. Agreements reached through the National Conference on Interstate Milk Shipments are essential to the free movement of milk. One of the milk consultants serves on the board of directors of this Conference, enabling him to keep local industry up-to-date on developments in this area.

SUMMARY OF PRINCIPAL ACTIVITIES FOR 1968

Milk Section

Visits to Counties	122
Dairy Farm Inspections	510
Processing Plant Inspections	47
Frozen Dessert Plant Inspections	11
Sanitation Surveys Completed	11
a. Processing Plants Represented	11
b. Dairy Farms Represented	419
Sanitation Surveys of Plants Fabricating Single-Service Containers	3
Dairy Farm Plans Reviewed	5
Processing Plant Plans Reviewed	3
Participation in Training Conferences	14

TABLE 41
CASES OF ANIMAL RABIES BY COUNTY, SPECIES, AND MONTH – FLORIDA, 1968

COUNTY	DOG	CAT	FOX	RACCOON	SKUNK	BAT	HORSE	BOBCAT	TOTAL
Alachua				1					1
Baker				2					2
Brevard				11					11
Broward				1					1
Citrus				1					1
Clay				1					1
Collier		1							1
Columbia				2	1	1			4
Dade				1					1
DeSoto				3					3
Escambia	1								1
Flagler				2					2
Hardee				3					3
Highlands				1					1
Hillsborough				1		3	1		5
Indian River				1					1
Jackson						2			2
Jefferson				1					1
Lake				1					1
Lee				2				1	3
Levy				1					1
Madison				1					1
Manatee				26	1				27
Marion				4		1			5
Martin				1					1
Nassau				2	1	1			4
Okeechobee				2					2
Orange						5			5
Polk		1		1		1			3
Putnam				1					1
St. Johns				2					2
Sarasota			1	3		1			5
Seminole	1			2					3
Taylor						1			1
Volusia	1			1		2			4
TOTAL	3	2	1	82	3	18	1	1	111
MONTH									
January			1	3		2			6
February				7	1			1	9
March	1	1	1*	9		1	1		14
April				11		2			13
May				6					6
June				5		2			7
July				7		2			9
August	1	1		8		3			13
September				6		2			8
October				5	1	2			8
November	1			9		2			12
December				6	1				7
TOTAL	3	2	2	82	3	18	1	1	112*

*Origin unknown

BUREAU OF RESEARCH

HOWARD W. CARTER, M.D., M.P.H.
Director

The major responsibility of public health is to protect the health of the public utilizing the most appropriate methods. Progress leans heavily on the results of empirical programs influenced by research findings and modified on the basis of evaluation. As problems become more complex, the need for careful guidance expands. The important contribution of this bureau is developing and fostering research in other bureaus, divisions and in the county health units, and assistance in directing these activities. In this role, a principal objective is coordination and communication among those who are planning and conducting investigations. Therefore, current projects are largely activities of persons outside the bureau and this report is a brief review of their studies. Two projects which are the direct responsibiltiy of this bureau, Community Studies on Pesticides and the Resurvey of the Aged, are reported in more detail.

For the most part, research activities are supported directly by grants and contracts and an important contribution by the participating bureaus is involvement of their personnel, provision of space and certain other services. During 1968, grant and contract supported work was in the range of $750,000 plus the intangible and overhead contributions which on a conservative estimate would be almost equal this amount. It is interesting that the three major research undertakings are related in one way or another directly to the insect population.

The fact that well established research centers are located in three strategic areas for the study of insects and their role in human disease may reflect the subtropical ecology of the state. The entire research effort of two of these centers, Vero Beach and Panama City, is devoted to the study of mosquitoes and dog flies, both man-biting insects. In this regard, in-depth investigation is directed toward a better understanding of the reproduction and growth characteristics, population dynamics, metabolism and comparative biology and biting and feeding habits. Investigation of host preferences of mosquitoes has been made possible through the precipitin test which permits identification of the host species by examination of the mosquito after a blood meal. This provides reliable data about this aspect of the feeding habits of these insects.

In the area of mosquito control the presence of larvivorus fish in swamps and impoundments is an important factor. The discovery of a hermaphroditic fish species in which females are non-existent but in which there are two kinds of males, primary and secondary, has important implications for genetic studies. This is comparable to having thousands of identical twins available for experimental and matched control groups.

Special emphasis has been placed on the identification and control of the mosquito responsible for transmission of St. Louis encephalitis in Florida, the *Culex nigripalpus*, at Vero Beach. Experimental techniques and new chemicals are tested at the Panama City center. Because the dog-fly is an economic and nuisance problem in that section of the state, experimental measures for its control are being investigated also.

The Epidemiology Research Center (formerly Encephalitis Research Center), in Tampa broadened its area of interest to include viral disease other than those caused by the arboviruses. These include mumps, measles, influenza and the Tamiami virus. California encephalitis viruses were the most prevalent this year; no isolation of St. Louis encephalitis virus was made for the sixth consecutive year in spite of careful study. The staff participated in the investigation of the first recognized case of human Venezuelan encephalitis on the North American continent, which occurred in a South Florida community. Surveillance in Central Florida did not indicate any spread of activity in this area.

The Community Studies on Pesticides project entered its fifth year. The project, conducted under contract with the Food and Drug Administration, is one of several throughout the nation investigating the effects of pesticides on human health. Multidisciplinary studies are being conducted in Dade County in cooperation with the University of Miami School of Medicine. These comprise the major portion of this activity. The research group investigates as many cases as possible of acute pesticide poisoning to determine the short term severe exposure effects. Long term high exposure groups include those persons occupationally exposed. They make up an important study group. For comparative purposes a "general population" sample has been monitored as representative of the long term low exposure of the average person. The periodic testing of those occupationally exposed provides participating industrial groups with a method warning that employees are becoming over exposed to toxic substances. This permits the employer to change the workman to a less hazardous situation before serious damage to health results.

A desirable result of the pesticide poisoning investigations has been the associated publicity. This has created an awareness among influential citizens of the dangers inherent in the handling of toxic chemicals and has initiated the necessary legislative regulations to control the sale and use of these materials.

Special studies of selected pathologic and therapeutic situations were undertaken. Persons with extensive liver damage showed high blood levels of organochlorine (DDE); individuals on phenobarbital therapy exhibited lower blood levels of organochlorine (DDE) than expected. Blood copper levels may be influenced by hormonal levels, for example, menstruation, pregnancy or taking the "pill", and by certain malignancies, especially of the genitourinary organs in both males and females.

Florida has one of five state health departments which receives a General Research Support Grant from the National Institutes of Health (NIH). These funds are awarded on a formula-basis according to the amount of NIH supported research conducted by the institution or agency. The major principle for the use of these funds is the support and fostering of new ideas in research and to encourage and assist individuals in the pursuit of study goals. During the year, 27 persons were supported in research for part or all of the year and necessary equipment was supplied to certain projects which for budgeting reasons they were unable to obtain. The funds provide for a science writer and a social scientist as members of the bureau staff. The review, editing and rewriting of research reports and articles has required that increased time be spent on this activity by the science writer. An extensive resurvey of older persons was one of the main responsibilities of the social scientist.

In 1960, a county-wide survey of persons 65 years of age and over residing in Pinellas County was completed. This had been done under the aegis of the county health department with assistance and support from the State Board of Health and a grant from the U.S. Public Health Service. During 1968 a resurvey of this original sample was conducted with the county health officer acting as project director and the social scientist from this bureau assuming major responsibility for the field work and interviewing. Office and storage space was provided by the county health department. Searching of vital records at the state office preceded the field activity in an effort to identify members of the survey group who had died in the state between 1960 and 1968.

The general purposes of the resurvey were to study illnesses and accidents, medical care practices, changes in social status, economics and migration patterns. The causes and dates of deaths will be analyzed in terms of selected risk factors to gain knowledge in regard to the contribution these items make to expectancy of life. Such things as age, sex and living arrangements, and disease and disability will be examined. In terms of field work approximately one-third of the original sample were found and re-interviewed. In regard to mortality about a third were verified as having died within the state and another twelfth reported as dead, probably died out-of-state and not verified at this time. Less than a fifth were not located, that is, no information was available or found by the field workers. Another twelfth were not completed because of refusal to participate or other reasons. Coding of the schedules is virtually completed and the data are being transferred to tapes for later analysis.

BUREAU OF SANITARY ENGINEERING

DAVID B. LEE, M.S. ENG.
Director (retired January 18)

SIDNEY A. BERKOWITZ, M.S. ENG.
Assistant Director (to January 18)
Director (from January 19)

GEORGE T. LOHMEYER, M.S. ENG.
Assistant Director (from May 24)

In the on-going battle against environmental insults, this year must be considered as the year of change. The change necessitated by the legislation designed to reinforce the total effort to abate air and water pollution increased substantially the volume of administrative details. This greatest change, however, though accomplished with the least disruption of the total effort, was the transfer of responsibility for the total bureau effort resulting from the retirement of David B. Lee after 35 years of service with the State Board of Health (SBH).

Reference has been made many times relative to the effect on the total effort occasioned by retirements and resignations. Most often the concern has been over losses of individuals with but a few years experience or tenure with the agency. This year, however, saw the retirement of Mr. Lee in January, followed in February by the retirement of Charles E. Cook, whose affiliation with the agency spanned over two decades. In February, also, first on a temporary basis and then permanently, Vincent D. Patton, who had served as director of the Division of Industrial Waste, moved to the Air and Water Pollution Control Commission. Coupled with these losses were the normal personnel transfers and resignations with no particular improvement in recruitment capability.

Having in mind the need to best utilize the total capability available in the state and county level programs, it is determined that in certain instances county health departments (CHD) having engineering personnel could more readily service adjacent counties than could the regional engineer. Toward this end, newly authorized positions for field activities were designated to be assigned to several CHD's in return for which they would assume the obligation of servicing one or more adjacent counties insofar as the engineering effort is concerned. The first such assignment was to Hillsborough County with Pasco County being the recipient of services previously directed from the Orlando Regional Office. The net effect has been a more available engineering effort in Pasco County, while at the same time relieving the hard-pressed Orlando office, which presently serves the greatest percentage of state population except that experienced in Dade County. It is hoped that this realignment of effort will be enhanced and implemented in the years ahead.

The major bureau efforts are demonstrated and reflected in the regional and division reports which follow. There can be little doubt that having followed the time-honored program of conference, conciliation and persuasion, the SBH has now entered an era where legal enforcement may well become the rule rather than the exception.

REGIONAL OFFICES ACTIVITIES

Central Region

Sewage treatment plant expansions were completed at Daytona Beach and Kissimmee. New sewage treatment plants and collection systems were completed and placed in operation at Zephyrhills, Spring Hill and Crystal River. Treatment plant expansions were under construction at the Southwest Orange County and Winter Park Estates plants. Daytona Beach Shores completed and placed in operation sewage collection and pumping facilities to pump sewage to the Daytona Beach system for treatment. Brooksville's second treatment plant was under construction and plans have been approved for expansion and upgrading of the existing School Street plant.

Treatment facilities to serve Winter Garden Citrus Products Cooperative were under construction and treatment facilities have been placed in operation at Golden Gem Growers, Inc., and Silver Springs Citrus Cooperative. Engineering plans were progressing for treatment facilities to serve B & W Canning Company, Inc., and Florida Food Products.

New water supply and distribution systems were completed and placed in operation to serve the City of Oviedo, Town of Ponce Inlet and Ozello Water Association.

Engineering reports and plans are presently being prepared to expand and upgrade sewage treatment facilities serving various municipalities and subdivisions in the region.

Personnel of our laboratory continued our sampling programs at Silver Springs, Howell Branch Creek and Lake Howell and the South Lake County's Chain-of-Lakes. A survey of a portion of the Halifax River was completed. Performance surveys were conducted at the following sewage treatment plants: Apopka, Maitland, Winter Park, Lake Lawne and Wildwood. A total of 6579 chemical analyses was performed even though there was no chemist on duty during the first three months of the year.

The bureau participated in the Second Annual Ninth Region Short School in Daytona Beach in January and assisted in planning for the third annual school to be held in Ocala in January, 1969. Class "C" water and sewage operators' examinations were proctored in May and November.

During 1968, this office approved 24 sewerage projects having estimated construction costs of $83,000.

This office was relieved of engineering responsibilities in Pasco County; however, the remaining counties served have a combined population of approximately 765,000 persons. The work load has and will continue to increase due to the impact of Disney World, Orlando Naval Training Center and Florida Technological University, all of which are now realities. The present regional engineering staff consisted of one engineer since the second engineer was on leave for graduate study. This presented practically an impossible situation since the majority of time was spent in investigating and reporting on numerous types of complaints and keeping up with the ever increasing volume of paper work. It was not possible to set up any type of routine procedure to visit waste treatment and water supply facilities.

A staff biologist was assigned to this office which should facilitate work in pollution control.

Northeastern Region

The Northeastern Regional Engineer's office had the responsibility of providing field engineering services to 20 counties in the Northeastern corner of Florida, extending from the Tallahassee area to the Atlantic Ocean, from the Gainesville area northward to the state line. This area comprises 12,331 square miles and has an estimated population of 435,700 persons, an increase of 63,800 over the 1960 census figures. The City of Jacksonville was not included in the jurisdiction of this office.

The staff of the regional office consists of two engineers, two chemists, one biologist and a secretary; the biologist position has been added to the staff this year, which gives an opportunity to gather background biological data on streams not previously surveyed.

The regional engineer assists Region II of the Florida Water and Pollution Control Operators Association in the annual regional short school for water system and wastewater system operators. The school was held in October and in an attempt to attract more participants, sessions were held in Lake City, Palatka and St. Augustine, as well as Jacksonville. Forty-six attendance certificates were issued to participants attending a minimum of four of the six sessions.

A curriculum for water treatment and wastewater treatment operators to be given at the Florida Junior College at Jacksonville was planned and organized. This was a joint effort of the Florida Water and Pollution Control Operators Association, Duval CHD, the SBH and the Florida Junior College at Jacksonville.

The swimming pool program was emphasized this year and a concerted effort was made to upgrade unpermitted pools in order to permit them, or to close them permanently. Sixteen new operation permits were issued and eight permits reissued during 1968.

Visits were made routinely to water supply and wastewater systems to assist the operators in plant control and to upgrade the operation of the systems.

An attempt was made to survey streams and other waters that have not been observed previously. Additional background information was needed on waters in the interior of the region. Areas surveyed included the Wakulla-St. Marks river system, a portion of the St. Johns River, Santa Fe Lake, Jumping Gulley Creek, Withlacoochee River, Doctors Lake, Swift Creek and Hunters Creek. Assistance was given to the Duval CHD in surveying of Cedar Creek, Ortega River, Ribault River and other areas.

Northwestern Region

The Northwestern Regional Laboratory and Office continued the dual functions of stream quality surveillance and environmental engineering consultations. Activity was somewhat curtailed in the earlier part of the year, but toward year's end, new impetus was given to the programs by recruitment and reassignment of personnel.

Emphasis was given to estuarine water quality investigations, due to numerous reports of fish kills. The majority of these kills were of small, sensitive species, such as alewife and menhaden. A total of 32 reports of fish kills were recorded and investigated. The entire region experienced record-low rainfall throughout the year. Consequently, discharge of all streams remained low, with minimum flushing action for estuaries. This further resulted in increased salinity of estuaries, generally lower tidal effects, and greater variations in temperature and oxygen levels.

Concentrated effort was given to the Escambia River, which continued to be degraded by discharges upstream from the Alabama-Florida state line. Survey work was accomplished, and a progress report was published in December.

Survey of Escambia Bay was started near the year's end and will be continued in 1969. This body of water drastically illustrated the complex problems of estuarine pollution. The Bay receives fresh - but greatly degraded - Escambia River, along with direct discharges of industrial waste and domestic sewage effluents. It is a broad expanse of shallow water, readily affected by temperature changes and thus experiencing wide variations in oxygen content. Some biological work has been done in Escambia Bay, with stations in nearby clean estuaries used for comparison.

A study was made in the early part of 1968 of Santa Rosa Sound to determine the degree of safety in public harvesting of Bay scallops. Conditional approval was given for harvesting of scallops and this remained in effect at year's end.

A great deal of time and effort were spent in the investigation of damaged and distressed fish in the Escambia and Pensacola Bays and adjacent waters. There was a tendency for the general public to blame pollution as the causative factor, but after formal requests for assistance, the appropriate agency succeeded in isolating a parasitic protozoan which had reached epidemic proportions.

A major survey was accomplished on St. Joseph's Bay in relation to discharges by a paper industry and chemical industries. A report of the conditions encountered was published and has been submitted to the Florida Air and Water Pollution Control Commission for further handling.

Limited survey work, particularly biological, was done on portions of Quincy Creek and Little River in the Ochlockonee Basin. This work related to discharges from a packing house, a large dairy, and Fuller's earth mining.

Water quality throughout the region was otherwise unchanged from 1967, and work on remaining waters was only limited surveillance. Some effort was made to continue operation of electronic monitors on selected interstate streams. But the failure of equipment, low water conditions, and limited data being obtained forced discontinuation of this endeavor early in the year.

Noticeable improvement in the field of air pollution was made in 1968. Visits were made to all major industries in the region, and several voluntary control programs were revealed. In other instances, new control equipment was installed or was in planning stages. At least one large paper industry submitted and received approval of plans for air pollution abatement equipment. Action has been initiated to abate uncontrolled dust from one fertilizer batching plant.

There was little success in high volume ("HiVol") air sampling. Attempts were made at Pensacola only. However, the "Effects Sampler" was continued in Pensacola in cooperation with the U.S. Public Health Service (USPHS). Approximately eight air pollution complaints were received, and these were mostly complaints of heavy smoke from the burning of junk automobiles. This practice presented the most pressing need for control and yet was the most difficult to approach.

Environmental engineering consultations and related activities continued to be widely varied. In addition to routine consultation with CHDs, personnel participated in two major public hearings, attended several meetings of county commissions and city councils, assisted in two major surveys of public water systems for purposes of classification as interstate carrier supplies, spoke to public groups on two occasions, were interviewed by news media in several instances, and assisted in initiation of solid waste surveys.

In conjunction with routine surveillance of public water supply and waste disposal systems through review of operations records and plant visits, complaints were handled as follows: water supply, 10; domestic waste, 15; industrial waste, 12; and 15 miscellaneous, including rubbish, general stream pollution, and swimming areas. Approvals for water supply, waste disposal, and air pollution control projects throughout the region showed an increase of 200 per cent over the same figure for 1967. There were 172 approvals granted, 24 of which were handled entirely by the regional office. These figures reflect increased activity throughout the region as well as increased effort by the regional office. Other major activities involved assistance to and participation in training of water supply and pollution control operators, including an annual conference and short school, and the processing of over 4000 laboratory reports of bacteriological samples from public water systems.

Southeastern Region

The year was one in which the emphasis was placed upon routine work and services to CHD's. This was mainly in an effort to catch up a large accumulation of back work and in response to a marked increase in growth in the southeast region. As a consequence, no new programs were attempted. A great deal of effort was expended in working with CHD's and in the supervision of sewage treatment plants. The operation of these plants is quite significant in view of the great interest of local conservation groups in stream pollution.

Specific accomplishments include the permitting of 44 swimming pools and an inspection program to correct deficiencies in existing permitted pools. Accelerated rate of growth in the region caused an increase in the number of small sewage disposal systems approved. The estimated cost of these systems came to $22,000.

The dairy barn manure disposal project received additional attention but progress has been minimal. Additional information was accumulated and a serious operational problem recognized, this being the presence of sand in the manure slurry. This sand must be removed before the slurry is distributed to the fields in order to minimize wear on equipment. Due to heavy rains, the nutrients from the manure contributed to an algae bloom in the

lower reaches of the St. Lucie Canal and St. Lucie River which caused considerable alarm in the Stuart area.

The problem of campgrounds received continuing attention with some progress being made, especially with state parks. Progress was made in controlling camping along Lake Okeechobee but this problem has not been completely resolved.

Considerable effort was expended in trying to bring the septic tank problem under control. The Okeechobee Board of County Commissioners was notified that no more septic tanks would be approved in the areas immediately adjacent to Lake Okeechobee, and the same position was taken at a Corps of Engineer's hearing on the Rotonda Development in Martin County on which the approval has been withheld pending sewerage plans satisfactory to the SBH.

The regional office provided assistance to the Division of Water Supply in the preparation of an updated report of chemical characteristics of Florida water supplies.

Fort Pierce completed a comprehensive water and sewerage program which included the upgrading of the sewage treatment plant. This plant is now among the most modern in the country and provides a very high degree of treatment.

Perhaps the most noteworthy occurrence was a fish kill in the South Fork of the St. Lucie River. The regional office participated, with other state agencies, in an investigation which has formed the basis of a court case for damages.

The problem of stream pollution became even more significant than in previous years and took more attention than any other item. A continuing monitoring program is set up for the Lake Okeechobee area and the data developed will be used to supplement a detailed study of the lake.

A program of making a detailed inventory of all sources of air and water pollution and their effects on bodies of water suffered from the demands of day to day operations. Also, there was not an adequate program for surveillance of public water supplies. These two matters are high on the priority list for 1969.

Southwestern Region

This report covers the activities and statistical data for this region, except for the highlights of Sarasota and Manatee

Counties. This office acted as sanitary engineer for Sarasota County for six months and Manatee County for five months. Only Manatee County had a sanitary engineer at the end of the year.

Projects approved by the bureau for this area were as follows: 112 water treatment and distribution projects estimated at over $3.8 million; 123 sewage treatment and collection projects estimated at over $6 million; 52 swimming pool projects estimated at $450,000; four incinerator projects estimated at $8000; eight industrial waste projects totaling over $75,000; and one air pollution control device of unknown value. There were at least 19 water supply wells approved estimated at $250,000. Approved locally were six projects covering water distribution lines estimated at $13,000, ten projects covering sewerage facilities estimated at $30,000, and a swimming pool water heater estimated at $1600. Although the July provisional estimates of population for this area was only 180,600 this area has had over $10.6 million worth of projects approved.

The bureau approved projects which brought them within the requirements of the Florida Air and Water Pollution Control Commission. Some of these projects are already in operation. Numerous other projects which do not meet the requirements have been under surveillance and pressure to get compliance. Fort Myers has had a second sewage treatment plant and other appurtenances approved by the bureau for a value of $2.4 million, which will relieve the existing overloaded plant.

Water systems of interest in Lee County that were put into service during the year were the Gasparilla Island Water Association (Boca Grande), the Lee County Water System, and the Cypress Lake Water Plant to serve Fort Myers Beach from the mainland. Other water systems of significance were constructed at Lakeport, Glades County; Immokalee, Collier County; and Arcadia, DeSoto County.

The number of operating reports reviewed was composed of 535 for public water systems, 733 for sewerage facilities and 31 for industrial waste plants. During the year, 62 water, 91 sewerage and 19 industrial waste treatment plants were visited. There were 79 inspections of public swimming pools. Twenty one air pollution emissions were monitored and they were composed of both controlled and uncontrolled types. Fifty-four public swimming pool operating permits were issued.

The septic tank control in the Cape Coral subdivision in Lee County continued. During the year permits were issued for 133 connections to a septic tank and private water supply, 365 for septic tanks with connection to public water, and 62 with a connection to a public sewer and public water system. There were 569 connections made to the public water system and 87 to the public sewer collection system. Two large areas had the sewers and lift stations completed during December. Approximately 300 connections in these areas will be made during the first part of 1969. There were 16.2 miles of water mains and 5.6 miles of sewer lines installed during the year. Plans for sewer collection lines and lift stations were approved during the latter part of the year for new areas at an estimated cost of $750,000. It is anticipated that by November, 1969, the number of sewer connections added will equal the total number of septic tank permits issued by this office since March 1, 1967.

Various conventions, schools and meetings outside this area were attended which covered such fields as plume evaluation, waste water symposium, technical conventions, etc. This office participated in Region IV and VIII Short Schools and also in a special school for owners and operators of public swimming pools.

Surveillance of the Punta Gorda water supply reservoir was continued to determine the amount of residual 2,4-D in the water after its use for controlling hyacinths. On August 11, five men died and one survived when coming into contact with hydrogen sulfide gas at a fish processing plant. The plant's end product is fish protein. A complete investigation was made and the appropriate reports submitted to the bureau. During the early part of the year a high volume air sampler was installed and put into service in Charlotte County. This activity is part of the state and national air pollution surveillance.

The highlight in Sarasota County was the approval of the water and sewerage facilities for the Siesta Key Utilities Authority (SKUA). This $2 million project included a 1.2 million gallon electrodialysis water treatment plant and an expansion of the activated sludge sewage treatment plant with nutrient removal. The SKUA electrodialysis plant is the largest in the United States and has a primary function of reducing total dissolved solids and sulfates to within the drinking water standards. The tertiary treatment of the sewerage facility involves filtration and coagulation with alum and lime to remove up to 100 per cent of BOD and 97 per cent of phosphates.

WINTER HAVEN REGIONAL STAFF

This staff continued its program in two basic disciplines — water quality control and engineering assistance.

Routine sampling of the Peace, Alafia, Withlacoochee, and Hillsborough Rivers was continued during the year. Special sampling of the Peace and Alafia River headwaters was conducted with emphasis on the phosphate industry's discharges.

Water quality surveys were conducted on the Weeki Wachee River and the Tsala Apopka Chain-of-Lakes. A special study was conducted on Lake Okeechobee to obtain background information prior to proposed mining of calcium rock. A special study of several Winter Haven lakes is being carried out to determine the concentrations of nutrients present.

A long term pesticide survey of the Caloosahatchee River was initiated this year with the primary emphasis on water quality of the potable water sources for Fort Myers and other portions of Lee County. Also, herbicide concentrations and build-up studies were initiated on Shell Creek Reservoir, which is the source of potable water for Punta Gorda and other portions of Charlotte County.

A fish kill on the St. Lucie River in Martin County was investigated and the cause found to be herbicides present in a drainage canal system that discharges to the river.

Three phosphate industry holding pond dike failures occurred during the year, and resulting effects to the Peace River and its tributaries were assessed. Two of these failures caused major adverse effects.

Two automatic water sample and analyses systems were installed during the year; one on the Peace River and another on the South Prong of the Alafia River. A third system will be installed on the North Prong of the Alafia River early in 1969.

In addition to the above sampling programs, biological activities have included the collection of background information on various unpolluted lakes and streams, a thermal enrichment study of Lake Monroe in Seminole County, the collection of special fish samples for radiological analysis, a continuing study pertaining to algae population and species at five locations, and the initiation of a long term study on thermal contributions to Tampa Bay in cooperation with the Hillsborough CHD. Also, three short schools were attended for the improvement of professional knowledge. A total of 1250 identifications of organisms were conducted in connection with biological activities.

Aid and education in regard to chemical laboratory practices was furnished to personnel from five counties, two cities, and two consulting engineering firms. Also, in regard to chemical laboratory activities, cooperation with the Polk County School System was continued in the aiding of a senior science student in a nutrient study of Winter Haven lakes which receive effluents from sewage treatment plants, industrial processing plants, and septic tanks.

Financial Aid for Waste Water Treatment Construction

The financial aid provided through the Federal Water Pollution Control Administration (FWPCA) continued to be an impetus to the construction of sewage treatment facilities for municipal governments. Data on this program for the fiscal year 1968-69 are:

Federal allotment for fiscal year 1968-69	$ 5,695,400
Unencumbered funds from allotments for previous fiscal years	3,973,000
Total amount available to applicants qualifying for a grant for the current fiscal year	9,668,400
Number of applications received	75
Estimated costs of overall projects	95,000,000
Federal grants requested	17,466,101

Financial aid was granted by the FWPCA to Clearwater, Port Orange, Key Colony Beach, Trenton, Pensacola, Gulf Breeze, White Springs, Panama City, Hollywood, Jacksonville, Dunedin, Cocoa Beach, West Melbourne, Wilton Manors, Sarasota, Titusville, Chattahoochee, Miami and Bradenton.

TABLE 42
ENGINEERING LABORATORIES BASIC WATER QUALITY DATA, FLORIDA, 1968

LABORATORY	Dissolved Oxygen	Biochemical Oxygen Demand	pH	Solids	Fluorides	Chemical Oxygen Demand	Chlorides	Nitrite, Nitrate Ammonia	Phosphates	Biologicals	Miscellaneous*
Jacksonville . . .	275	452	236	700	28	103	172	163	62	18,750	1642
Winter Haven . .	882	979	2848	244	1267	4	97	5783	1976	-0-	5673
Orlando	702	372	532	1180	-0-	222	291	1082	609	8234	1589
Pensacola	303	313	343	262	37	223	234	232	58	5140	2721
TOTALS	2162	2116	3959	2386	1332	552	794	7260	2705	32,124	11,625

* Miscellaneous includes: phenols, cyanides, surfactants and other specialized analyses.

SHELLFISH AND SUBDIVISION PROGRAMS

The Division of Special Services was discontinued, July 18.

On February 26, the Bedding Law Administration and its personnel were transferred to the Office of Registration and Drug Administration of the SBH.

The following responsibilities were placed under the administration of the bureau director.

Supervision and administration of the SBH program for shellfish sanitation; review of new land subdivisions with recommendations for satisfactory water supply and sewage disposal facilities; and technical advisory assistance to CHD's on septic tank regulations of the State Sanitary Code.

Principal activities of the staff included the inspection and supervision of shellfish establishments, surveys of shellfish harvesting waters, and the control of all shellfish harvested, processed, and sold by the industry within the state; review of reports of inspections of individual water supply and sewage disposal installations for homes constructed under federal mortgage insurance; and clerical office procedures for adequate records.

Shellfish and Crustacea Control Program

This program continued to emphasize adequate and effective control over the growing, harvesting, processing and marketing of shellfish. Plans were made for reappraisal of all existing shellfish growing areas to comply with the National Shellfish Sanitation Program.

Personnel of the Marine Laboratory in Apalachicola was engaged in numerous aspects of the shellfish and crustacea control program in various areas of the state. Activities included extensive collection of seawater samples, extensive hydrographical and bacteriological data of the surrounding bay waters, assisting USPHS personnel in making dye studies in North Bay in Bay County; making a sanitary survey of scallop producing waters in Escambia County; inspecting the domestic waste disposal system of U.S. Army Corps of Engineers' dredge boat, *Guthrie*, while it was in the Apalachicola area, and the Engineers' survey boat, *Wimico;* maintaining a daily log of current meteorological data obtained from the U.S. Weather Bureau; and inspecting sewage treatment plant operations.

The sanitarian-in-charge and the microbiologist combined activities and began a program to visit and sample a product from each certified shellfish production plant in the Franklin County vicinity at least once every four to five weeks. Included in this program were two collections of Bay oyster samples within this period; examining and testing local potable water supplies, including St. Vincents Island Conservatory; bacteriological examination of Bay County shellfish waters; and assisting local industry in their sanitary seafood programs.

Additional plans for next year include monthly bacteriological analyses on crabmeat samples from local plants as well as periodic sampling of scallop and clam meats from local plants.

The evaluation of the shellfish control program by the USPHS is planned for the coming year.

Liaison and frequent detailed assistance was provided to those CHD's having a shellfish and crustacea responsibility. The sanitary inspection of the processing plants in 24 counties, with the exception of Franklin County, and the enforcement of sanitary regulations is a routine function of the CHD's.

The shellfish toxin surveillance program continued in Southwest Florida and included the counties of Pinellas, Manatee, Sarasota, Lee, and Charlotte. Heavy metal sampling program continued with samples taken from several stations along the Gulf Coast.

Personnel in the shellfish program attended meetings and conferences with CHD, State Board of Conservation (SBC), and USPHS. The "Shellfish Growing Area Survey Procedures" class conducted by the Gulf Coast Marine Health Sciences Laboratory, Dauphin Island, Alabama, October 7 — 11; The Interstate Seafood Seminar; Gulf States Shellfish Conference, and private industry were also part of the total meetings.

Compliance with regulations concerning tags on each sack of shellstock, patrol activities, closed area surveillance, shellfish sanitation program, evaluation and classifications of shellfish growing areas, shellfish and crabmeat productions and marketing, relationships of problems neighboring states have with shellfish shipped in from adjacent states, mechanical shucking, and eviscerating of scallops on board boats were important subjects of these meetings.

Northwest Florida continues to be the primary source of oysters in the state. Franklin County shellfish landings in a preliminary report were 4,430,015 pounds. The landings in Franklin County usually represent better than 85 per cent of total landings for the state. This production is due in part to an additional area of approximately 35 square miles of conditionally approved waters that have been open the entire year. Because of improper certification, improper handling, refrigeration, and inadequate records, 58 gallons and 40 bags of oysters were destroyed. A harvest of scallops was made in Franklin County during September, total pounds 4918, some of which were processed in the area.

The following data on crabmeat production through June was obtained from the State Board of Conservation. The total production for the state was 8,320,296 pounds.

The largest oyster repacker in Franklin County is engaged in moving its entire operation of seafood processing and packaging from Robobeth, Delaware to Apalachicola.

Once each month the Marine Laboratory submits oyster meats and oyster growing water samples to the SBH's radiological laboratory in Orlando.

The Florida Air Monitoring Network sampling unit located on the roof of the marine laboratory was operational and 26 air sample recordings were forwarded to the agency.

The marine laboratory electrical system was completely rebuilt, flourescent light fixtures installed throughout, increasing light intensity to at least 50 foot-candles. To insure safety for all personnel, all electrical apparatus was grounded.

The distilled water system was revamped so that media and reagents could closely follow recommendations by USPHS report, "Evaluation of Water Laboratories; 1966".

Personnel of the marine laboratory conducted a training program for seafood workers. It was not a mandatory course, and a total of 74 workers from Franklin County attended. Persons consulted thought the training was worthwhile and plans are being made to offer this course next year.

Plans made for the future include studies on dissolved oxygen, biochemical oxygen demand and heavy metals of the local estuarine waters; recovery of pathological species of bacteria from sewage effluent; evaluation of current fecal coliform determinations of local bay waters and expansion of existing facilities in order to extend the laboratory functions to include areas beyond the immediate vicinity.

Table 43 summarizes items of the shellfish and crustacea control activities performed by personnel in the shellfish program.

Activities performed by personnel of the CHD's in shellfish control are not included in this table, but are reported by the Bureau of Local Health Services elsewhere in this report.

Subdivisions

Many CHD's have developed strong subdivision control procedures derived from SBH programs. A total of seven new subdivisions, including 187 lots were submitted to SBH from three CHD's for review and recommendations during the year. One hundred eighty-seven of these lots were endorsed for proposed use of septic tanks, with public water supply required to be provided for 129 lots.

As indicated, only a minor portion of total land developments in the states were submitted due to variable practices and efforts in controlling subdivisions by all CHD's. These activities represent a worthwhile benefit in protecting environmental conditions for many people.

Considerable activity was required in the review of reports of inspection of individual water supply and individual sewage disposal installations, as required by the federal mortgage insuring agencies for homes constructed under federal insured mortgages. The number of reports reviewed totaled 610 throughout the year, and originated in 49 counties.

This activity assures that these homes were served by septic tank installations in compliance with regulations of the State Sanitary Code and approved by the respective CHD's, and by individual water supply systems when constructed and used in accord with good public health standards, and that the water meets chemical and bacteriological public health standards for safe drinking water.

TABLE 43
SUMMARY OF ACTIVITIES RELATING TO SHELLFISH AND CRUSTACEA PLANTS, FLORIDA, 1968

Type of Operation	Operating Certificates Issued	State Visitations Made	New Plants Constructed	Plants Remodeled
Shellfish shucking and packing.	89	759	4	....
Shellfish shellstock only	53	18	2	....
Shellfish repacking	20	40	....	....
Shellfish reshipping	....	....	....	....
Scallop processing	29	13	....	....
Crabmeat processing	33	19	....	....
Clam processing	15	8	....	....

RELATED SHELLFISH AND CRUSTACEA ACTIVITIES

Oyster growing water samples bacteriologically tested	155
Oyster meat samples bacteriologically tested	187
Crabmeat samples bacteriologically tested	0
Plant water samples bacteriologically tested	221
Number of new water areas approved for shellfish harvesting	0

DIVISION OF INDUSTRIAL WASTE

NICK MASTRO, B.C.E., M.P.H.
Director

This division has as its primary responsibility the control of the quality of liquid waste from industrial plants, air pollution, the facilities for mechanical refuse disposal and regulation of the installation of drainage wells. It is also concerned with obtaining background radiological data in cooperation with the Division of Radiological Health.

These responsibilities are discharged through the avenues of plan review, air and water sampling and technical assistance to local governmental agencies.

Since the creation of the Florida Air and Water Pollution Control Commission (FAWPCC) and in particular since its director has been appointed and staffing has taken place this year, this division has experienced a mounting workload. This was due to transferring certain functions of this office to the FAWPCC as well as acquainting them with past history of cases pending or the status of various projects. Many meetings were held with its staff as well as attending its meetings and in addition presentations have been made routinely.

As a result of the citations, which were issued by the SBH in the name of the FAWPCC, an unprecedented increase in request for conference with engineers, personnel representing industry, government officials and others was experienced.

Many hours were spent in reorganizing files and realignment of staff reflecting efforts to work with the FAWPCC.

WASTE TREATMENT FACILITIES APPROVED

The number of waste treatment facilities approved increased during 1968. The total estimated cost of facilities approved was much greater than during 1967, although the total estimated equivalent population was only slightly higher.

The typical larger facilities approved included a portion of major waste treatment facility expansions at two paper mills, a pollution control system for a nuclear power plant, a waste water treatment system to receive both brewery wastes and domestic wastes, a central industrial waste treatment system for several food processing plants, and waste treatment facilities for a ball powder plant and a rendering plant.

There was an increase in the number of approved treatment facilities for dairy and milk processing wastes which in part reflects the increasing awareness of the pollution potential of agricultural activities.

The surveillance of on-site waste treatment facilities at coin operated laundries by both County Health Department and State Board of Health personnel has indicated a continuing general inability of secondary treatment facilities for providing reliable treatment. For this reason tertiary treatment has become a requirement for approvable treatment facilities at proposed laundries which are unable to connect to a sanitary sewerage system.

As part of an extensive survey of the St. Johns River Basin in cooperation with the FAWPCC, an inventory of all industrial waste sources in the St. Johns River Basin, exclusive of the Oklawaha River drainage area, was undertaken.

WINTER HAVEN ENVIRONMENTAL FACILITY

AIR POLLUTION ACTIVITIES

Inplant Inspection and Source Sampling

During 1968 air pollution activities of the Winter Haven staff were expanded to cover the entire state, instead of concentrating on Polk and Hillsborough Counties as in past years. As a result the 11 industrial fields included phosphate, general chemicals, pulp and paper, citrus, sugar, steel, pre-mix concrete, rendering, synthetic fibers, naval stores, and absorbing clays. Ninety-nine sources of possible air pollution were sampled, which required 345 samples.

Nine complete complexes of the pulp and paper industry were inspected, with special emphasis on air pollution control equipment and sampling facilities needed to determine effectiveness of control devices.

The fatalities of five persons working at a fish meal plant initiated a thorough investigation to determine the presence of the exact toxic materials responsible.

Fifteen sets of plans and specifications were reviewed for approval, and permits to construct were issued.

Ambient Air Monitoring

The prime function of this program is to measure the concentrations of fluorides and sulfur dioxides in the ambient air, and the receptors of these pollutants. Air samples were collected from nine locations on 4, 24, or 1-hour increments of time, covering seven days a week.

Two special studies were continued to determine the relationship between known pollutants and complaints of human discomfort and health effects. These studies were carried out near South Lakeland and Fort Meade. Both studies indicate a correlation between complaints and sulfur dioxide concentrations greater than 50-60 ppb and ammonia concentrations above 30 ppb as well as visibility. No complaints were received without the presence of visible haze.

A total of 73 complaints were received in 1968, 65 of which involved the phosphate industry. The number of complaints pertaining to nuisance and human health effects was 69. Five complaints pertained to vegetation damage (one to citrus damage) and two complaints were involved with general property effects. Twenty-four of the complaints were from Fort Meade and involved eight persons organized into a human monitoring system. Twenty-one complaints were from the South Lakeland area and involved three persons whereas 19 complaints were from Lakeland proper and involved six persons. Fifteen of the Lakeland complaints were from one person. Also, five complaints were from Bartow, two from Ruskin, and one each from Mulberry and Plant City.

Ambient air samples collected included 6398 for fluorides, 7794 for sulfur dioxide, 417 for ammonia, 70 for phosphates, and 154 for miscellaneous constituents. Also, 47,140 samples were analyzed for sulfur dioxide and 46,640 for sulfur oxide aerosols by automated equipment which samples, analyzes, and records results.

Sampling of vegetation in conjunction with the ambient air program was associated with pasture grass, gladioli, citrus leaves, and vegetable truck crops.

The pasture grass sampling conducted during the past five years was continued on a four week basis for 32 pastures and on a non-routine basis for four pastures. A total of 556 pasture grass samples were collected.

The biweekly collection of gladioli samples, as conducted for the past seven years during the peak growing season, was continued. A total of 59 gladioli samples were collected and analyzed.

The extension of a citrus leaf sampling program was conducted during the 1968 growing season. A total of 199 citrus leaf samples were collected and analyzed.

A new program of sampling vegetable truck crops was initiated during the 1968 growing season. The purpose is to gain background information as to normal fluoride and sulfur contents.

NUMBER OF AIR POLLUTION SAMPLES
ANALYZED BY TYPE, FLORIDA, 1968

Fluorides	7933
Sulfur Oxides	7774
Sulfur Oxides (30 min. samples collected, analyzed, and recorded automatically)	93780
Miscellaneous (NH_3, PO_4, Pesticides, etc.)	642
TOTAL NUMBER OF SAMPLES	110,149
TOTAL NUMBER OF TESTS COMPLETED	111,500

SOLID WASTE DISPOSAL

The problem of solid waste disposal was one of the neglected areas of pollution control. The cost of solid waste collection and disposal ranked third in municipal expenditures, exceeded only by the costs of education and highway construction.

The scope of the problem can be gained by the fact that today Florida generates solid wastes at the rate of 16,000 tons per day (5.1 lbs. per person per day), and that by 1975 this figure could reach 26,000 tons (7.0 lbs. per person per day). The trend toward urban living created population concentrations that accentuate the potential health hazards from improper storage, collection and disposal methods. For example, in Florida, the seven most populous counties account for 60 per cent of the total population, and yet they occupied only 15 per cent of our land area.

To implement the work already started last year, two engineers were added to the solid waste planning department to conduct surveys throughout the state on a county by county basis. This effort is in cooperation with the U. S. Department of Health Education and Welfare, U. S. Public Health Service, and operates under a federal grant. The 23 largest counties (population wise) have been surveyed by this staff and are currently being evaluated. In addition, a series of 12 area meetings were conducted for county sanitarians in the 44 smaller counties to acquaint them with the survey and to enlist their cooperation in completing the survey for the entire state.

The ultimate aim of these activities included the revision of the Sanitary Code as it applied to solid wastes, and to recommend legislation to improve solid waste collection and disposal practices state-wide.

A total of 69 incinerator approvals were granted in 1968, with an estimated total cost of $2,983,100. Table 44 gives a breakdown of approvals by county.

DRAINAGE WELLS

A total of 154 well permits were issued in 1967. Most permits continued to be for the disposal of swimming pool and closed system air conditioning drainage.

RADIOLOGICAL HEALTH

Work was continued during 1968 in cooperation with the Bureau of Laboratories and Division of Radiological Health in securing samples for radiological analysis. The total number of samples collected and analyzed for gross alpha and beta activity was continued at a rate of approximately 27 per month. Nonaqueous samples such as soil, cabbage palm leaves, oysters, fish, and silt were also analyzed for gamma activity.

TABLE 44
INDUSTRIAL WASTE AND INCINERATOR PROJECTS APPROVED WITH POPULATION EQUIVALENT AND COST, BY COUNTY, FLORIDA, 1968

County	Industrial Waste Projects			Incinerator Projects		
	No. Approved	Population Equivalent	Cost	No. Approved	Population Equivalent	Cost
Alachua	2	290	$ 7,500	2	7,730	$ 43,000
Bay	1	210	11,000	...	...	...
Brevard	...	...	...	5	1,180	32,200
Broward	2	NA	19,000	1	150	15,000
Citrus	1	NA	2,000,000	1	330	3,000
Clay	2	24,700	247,500	...	...	...
Collier	...	...	...	1	330	7,000
Dade	6	6,680	305,500	1	25,000	2,400,000
DeSoto	1	1,650	9,500	...	...	...
Duval	10	177,280	2,700,000	15	5,230	165,100
Escambia	2	120	5,700	...	...	...
Hardee	...	...	...	1	330	3,000
Hendry	...	...	...	1	50	3,200
Highlands	1	220	7,400	...	...	...
Hillsborough	2	121,800	1,577,900	4	1,550	21,800
Jackson	...	...	...	1	400	9,100
Lake	3	10,790	44,000	...	...	...
Lee	4	560	50,200	2	410	6,600
Leon	...	...	...	2	600	11,800
Manatee	3	180	9,500	3	1,650	40,300
Marion	...	...	...	2	1,100	14,000
Martin	...	...	...	1	300	3,000
Monroe	...	...	...	2	340	6,200
Nassau	1	NA	450,000	1	3,000	24,000
Orange	...	...	...	2	730	16,000
Osceola	...	...	...	1	330	3,000
Palm Beach	2	NA	11,000	2	470	7,100
Pinellas	4	360	38,000	8	1,630	100,100
Polk	4	7,590	1,199,400	4	1,700	23,000
Santa Rosa	...	...	...	1	270	2,500
Sarasota	1	NA	1,500	2	620	7,000
Seminole	...	...	...	1	400	5,600
Sumter	1	70	6,500	...	...	...
Taylor	2	372,000	2,266,000	...	...	...
Volusia	2	4,670	83,000	2	600	10,500
Wakulla	1	9,060	341,500	...	...	...
TOTAL	58	738,180	$11,391,600	69	56,430	$2,983,100

DIVISION OF WASTE WATER

RALPH H. BAKER, JR., M.S.S.E.
Director

This division's responsibilities and activities centered around review of plans, consultation and evaluation of operation for domestic waste facilities, and a revaluation of existing sewage effluent discharges and their adequacy under the reclassification of waters which came into effect with the formation of the Florida Air and Water Pollution Control Commission (FAWPCC).

MUNICIPAL WASTES

A total of 1196 projects was processed and approved as compared to 968 projects in 1967. The construction dollar volume of all projects processed was $88,734,560, an increase of approximately $40.5 million over the previous year ($48,275,009). This is the largest single year in dollar volume since records have been compiled and is approximately a 45 percent increase over the peak year of 1959. This increase was greatest in the area of collection systems. There was also over a 100 percent increase in plant construction (Table 45) when compared to the previous year. It will be noted in Figure 3 that the number of sewage treatment plants approved was increased by approximately 100 over the previous year. Based on past records, a projection of sewerage needs over the next five years indicated that approximately $500,000,000 would be needed to meet current needs.

A number of major projects were processed during the year. These included the Brevard County sewerage system for the South Beach area, West Melbourne, Fort Lauderdale's Plant A, Jacksonville Beach, Chattahoochee, Fort Myers, Gulf Breeze, Jay, Sarasota, Southwest Orange County Sanitary District, Dunedin, Mulberry, Panama City, Hialeah, North Dade Transmission system, White Springs, Siesta Key, Hollywood, Trenton, and Haines City.

During the past decade and particularly the past year, there has been a tremendous increase in sewage treatment plant construction within the state (Figure 3). There is a total of 2,264 sewage treatment plants of various types and sizes within the state (Table 46). The majority of these systems are in the less than 50,000 gallons per day (gpd) range, serving commercial installations, such as schools, trailer parks, motels, etc. Operation reports from all sewage treatment facilities are required. Those from commercial establishments are reviewed at the county and/or regional level. Those for municipal and subdivision systems are reviewed by this division.

A total of 54 visits and field inspections was conducted on a cooperative basis with the regional and county engineers, covering some 21 counties. Forty-eight preliminary engineering reports on sewerage projects were submitted during the year.

During the later part of the year, a review of all treatment facilities located within the St. Johns River Basin was completed and some 63 treatment facilities which were not meeting the minimum requirements of 90 percent B.O.D. removal were notified and information was requested regarding upgrading of these facilities.

ADDITIONAL ACTIVITIES

Due to the recent federal legislation and the need for the state to submit to the Federal Government water quality standards, the division furnished numerous staff reports to be utilized in the preparation of this submittal to the Federal Government. Under Florida Statute 403 creating the Florida Air and Water Pollution Control Commission, the division has prepared reports on its activities in relation to those facilities placed on notice by the Commission during the past year. During the early part of the year, under Florida State Board of Health Chapter 170C-5 (now FAWPCC Rule 28-5), the division was granted permission to issue additional notices to the owners of sewage treatment facilities which were either discharging primary effluents or raw sewerage to the waters of Florida. Since the original meeting of the FAWPCC at which time notices were authorized for all primary and raw sewerage discharges, a total of 70 notices have been issued by the division for the Commission. An evaluation has been made of all these notices. Four of the original notices were forwarded to the Commission as no reply was forthcoming in regard to the notice which required answering within 90 days. Fourteen facilities were forwarded to the Commission for legal action as it appeared that the municipality and/or utility was unable to finance the necessary improvements to comply with the Commission's regulations. The division is currently re-evaluating notices periodically to determine if compliance with requirements will be met by the deadline of January 1, 1973.

The division has also provided instruction at three regional short schools and the annual short school; compiled and processed examinations for the voluntary certification program and provided instruction for sanitation training courses. During the year, two members of the staff attended a Technical Symposium on Nutrient Removal and Advanced Waste Treatment, sponsored by the Federal Water Pollution Control Administration.

TABLE 45

SEWERAGE PROJECTS APPROVED WITH DESIGN POPULATION AND ESTIMATED COST, BY COUNTY, FLORIDA, 1968

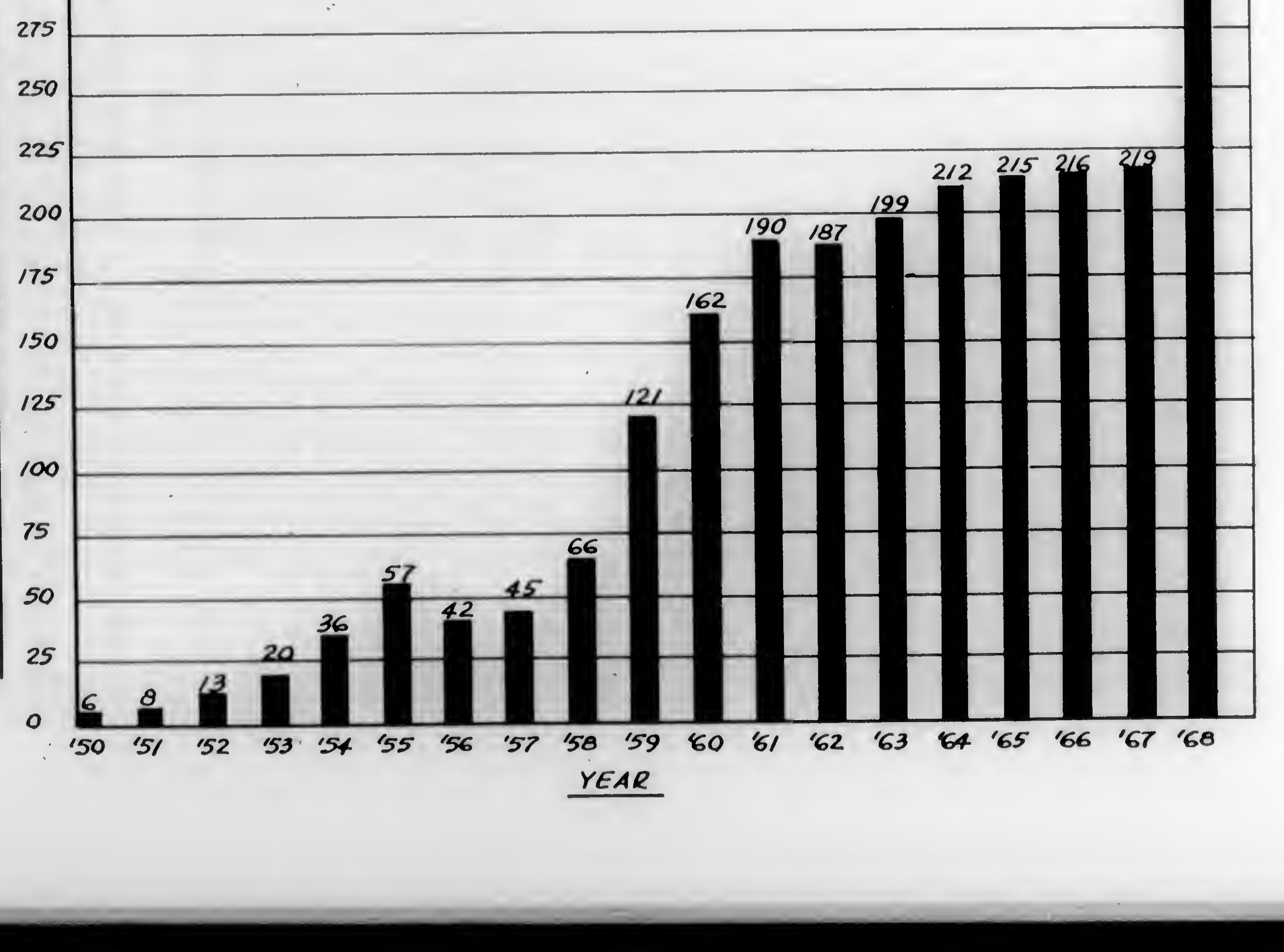
COUNTY	NO. OF PROJECTS	DESIGN POP.	ESTIMATED COSTS			
			SEWERS	LIFT STATION	PLANT	TOTAL
Alachua	16	6,972	$ 251,706	$ 11,000	$ 22,000	$ 284,706
Baker	1	20	....	....	3,600	3,600
Bay	12	70,613	1,297,682	243,150	1,277,700	2,818,532
Brevard	33	87,000	4,039,706	268,000	1,079,000	5,386,706
Broward	137	351,023	9,019,884	712,510	6,570,160	16,302,554
Charlotte	14	1,981	222,200	56,500	83,700	362,400
Citrus	5	1,155	111,500	17,000	27,500	156,000
Clay	11	7,246	181,654	31,500	96,000	309,154
Collier	33	38,742	505,316	83,300	105,400	694,016
Columbia	3	158	12,500	1,250	14,800	28,550
Dade	158	868,435	21,752,975	4,090,463	1,957,650	27,801,088
DeSoto	4	1,105	35,000	17,000	12,000	64,000
Duval	92	190,026	1,227,220	660,171	1,473,108	3,360,499
Escambia	20	14,846	251,683	202,200	359,500	813,383
Gadsden	1	5,000	....	....	156,000	156,000
Gilchrist	1	1,500	222,848	42,152	100,000	365,000
Glades	2	450	33,666	8,000	34,500	76,166
Hamilton	3	2,500	76,820	24,580	115,000	216,400
Hernando	11	5,920	810,505	80,900	201,000	1,092,405
Highlands	4	258	44,000	10,000	19,000	73,000
Hillsborough	26	36,672	1,209,050	118,500	18,300	1,345,850
Indian River	16	2,405	86,525	25,500	31,600	143,625
Jackson	1	5,500	47,350	....	48,950	96,300
Jefferson	2	75	....	....	10,000	10,000
Lake	21	3,865	206,670	57,500	127,600	391,770
Lee	56	204,474	2,310,045	352,577	1,875,180	4,537,802
Leon	5	856	324,000	....	29,000	353,000
Madison	1	....	....	....	....	....
Manatee	31	19,054	353,920	221,850	293,479	869,249
Marion	6	497	28,000	10,000	66,800	104,800
Martin	10	1,666	47,440	10,100	45,700	103,240
Monroe	8	3,128	371,900	108,400	181,500	661,800
Nassau	5	96	....	....	18,700	18,700
Okaloosa	11	12,473	419,540	150,000	77,700	647,240
Okeechobee	2	1,500	....	....	34,000	34,000
Orange	74	59,863	1,214,676	262,420	829,700	2,306,796
Osceola	6	1,050	69,740	8,000	47,300	125,040
Palm Beach	78	285,416	1,791,663	489,850	705,560	2,987,073
Pasco	10	6,431	461,250	51,600	201,250	714,100
Pinellas	101	324,594	2,065,395	386,690	580,635	3,032,720
Polk	22	189,231	626,572	207,700	562,700	1,396,972
St. Johns	13	1,014	11,220	2,000	52,600	65,820
St. Lucie	8	10,703	79,000	28,500	23,870	131,370
Santa Rosa	4	6,228	207,700	31,500	362,000	601,200
Sarasota	51	130,045	1,878,215	309,324	1,564,600	3,752,139
Seminole	34	71,050	995,270	366,000	371,500	1,732,770
Sumter	2	123	13,000	5,000	....	18,000
Suwannee	2	44	....	....	8,500	8,500
Taylor	1	....	....	....	....	....
Volusia	25	410,792	1,553,125	489,400	68,500	2,111,025
Wakulla	2	776	1,000	1,000	12,000	14,000
Walton	1	500	33,300	2,200	20,000	55,500
TOTALS	1,196	3,445,071	$56,502,431	$10,255,287	$21,976,842	$88,734,560

TABLE 46
SEWAGE TREATMENT PLANTS BY TYPES AND CAPACITY, FLORIDA, 1968

Type of Treatment Plant	CAPACITY				
	Less Than 50,000 GPD	50,000 To 500,000 GPD	500,000 To 1,000,000 GPD	Over 1,000,000 GPD	Total
Activated Sludge	3	23	9	29	64
Contact Stabilization . . .	147	114	19	23	303
Extended Air	1,382	64	1	2	1,449
Trickling Filter	94	208	34	46	382
Primary	16	28	4	9	57
Ocean Outfalls	0	0	0	9	9
Totals	1,642	437	67	118	2,264

GPD—gallons per day

FIGURE 3
WASTE WATER TREATMENT FACILITIES APPROVED, FLORIDA, 1950-1968
APPROVED 1950-68



DIVISION OF WATER SUPPLY

JOHN B. MILLER, P.E., M.P.H.
Director

In close relationship to the steep population growth curve for the state, this division's principal activity continued to be its involvement with new construction of public water supply facilities, as well as new public pool construction, to meet the resulting need of these public works. A combined total of some 1150 projects, or 23 per cent greater number than in 1967, was approved in the division. Estimated cost of construction was even slightly higher (five per cent more), with about $35.5 million exclusive of county approvals, than for 1967.

Although development of ground-water resources continued to be the greater fraction of public water supply sources in Florida, interest in surface water for this use also continued. Early in the year, reconnaissance was made of impoundment contemplated in St. Johns County. Similarly, in Okaloosa County another impoundment for a district water supply is under consideration.

An approved demonstration installation comprising conversion of two filters to dual media and two to mixed media at Fort Lauderdale for high rate filtration made in October will eventually provide significant data in evaluating the new process for type of facilities there.

Work was started in early fall for preparation of a four-year supplement to compiled raw water data on public supplies as to chemical and physical characteristics. With help of one of the regional engineer offices (Southeastern), the bulletin is expected to be completed in early 1969.

Of particular interest is the program for development or improvement of central water supplies in rural or relatively remote communities, which continued with financial participation by Farmers Home Administration (FHA) of the U.S. Department of Agriculture (USDA). In 1968, plans were approved for 13 projects in 10 counties, the proposed water works having estimated cost of about one and three-quarters million dollars, and when construction is completed will serve about 10,000 persons. Added to other of these projects approved since the initial one in 1963, the totals were about $9.7 million estimated cost; and upon completion will serve about 38,000 persons, most of whom without this special program would likely not have obtained water service of standard quality in the foreseeable future.

Development of background information on and surveillance of some surface water sources of public supplies as to herbicides and pesticides fractions was continued. One new supply area (Caloosahatchee River Basin, source for Lee County Water System and well field recharge for Fort Myers) was surveyed through the cooperation of the bureau's Winter Haven facility. This work was enhanced significantly where Lake Washington and upstream St. Johns River are involved. Brevard CHD added gas chromatograph apparatus to its laboratory for water sample examinations. The two cities Melbourne and Eau Gallie, which obtain supplies from the area, participated financially. Other areas also involved in the herbicides-pesticides activity include Hillsborough River and tributaries, source of supply for Tampa; and Prarie-Shell Creek impoundment for Punta Gorda supply. Cooperation of local water departments, Federal Water Pollution Control Administration at Athens, Georgia, and U.S. Public Health Service's (USPHS) Regional Office, Atlanta, Georgia, with the SBH made this important activity possible.

CONSTRUCTION OF PUBLIC WATER WORKS AND SYSTEMS

The division was virtually overwhelmed by the increasing number of project plans and documents submitted for approval of proposed water facilities, 1115 of them were received, which with 124 brought forward from previous year totaled 1239. Of these, 855 were approved (about 18 per cent more than in 1967); 35 revisions were approved; 46 filed for information; 35 were returned to respective consulting engineers for various reasons; and 269 carried forward to 1969.

Certain numerical data are shown on the 855 projects approved in Table 47, but the table does not reveal that 470 are municipal projects including 62,911 million gallons per day (MGD) rated plant production capability added when completed. Also, there were 13 new municipal or community systems; 263 subdivision projects, of which 37 include plant expansion for 21.153 MGD rated plant capability; and 109 new public supply systems for subdivisions, trailer parks, camps, etc., which will provide 20.510 MGD rated production capability when completed.

WATER SUPPLY WELL CONSTRUCTION

Continuing development of ground-water resources as the predominant type source of public supply is reflected in Table 48. County grouping as to location of the well construction for which permits were issued is seen in the table, the number of active counties being fewer (15 per cent less than in 1967); but the total number of permits remaining at about the same high level (actually, three per cent more in 1968) for past several years.

OPERATION OF PUBLIC WATER WORKS

In Table 49 is seen the number of existing water plants by county, with entries of numerical data on visits and the plants visited in connection with operation surveillance and special problems, by central office staff. This important program feature had to be curtailed even more than previously, owing to press of other work items. The number of water plants visited was reduced by 44 per cent and the number of plant visits fewer by 34 per cent, than in the previous year.

Among new plants placed in service were: Arcadia (change to wells from Peace River), Cypress Lake — Fort Myers Beach, Gasparilla Island — Boca Grande, Hastings, Highland Beach, Hollywood (change to precipitation from base exchange), Immokalee, Jasper, Lakeport, Lee County Plant (Caloosahatchee River), Miami (Preston Plant), Micanopy, Ozello and Palm Beach Gardens.

Water works operator in-service training and certification continued to receive considerable attention of division staff members. Results of this activity (also as to sewage works operators) numerically are seen in Table 51.

FLUORIDATION OF PUBLIC WATER SUPPLIES

At North Miami, approved installation of feeder equipment for initiating water fluoridation practice was started, with placing same in service scheduled for early 1969. Inquiries from other communities, including Maitland, were also received.

Water fluoridation practice under technical supervision of the division was continued at Belle Glade, Clewiston, Cocoa (also serves Canaveral, Cocoa Beach and other island and coastal areas, and Rockledge), Daytona Beach, Eau Gallie, Fort Pierce, Gainesville, Key West (this and other towns and areas of the Florida Keys are supplied fluoridated water from U.S. Navy plant at Florida City), Melbourne (also serves Canova Beach, Indialantic, Indian Harbour Beach and Melbourne Beach), Miami (also serves Bal Harbour, Bay Harbor Island, Biscayne Key, Coral Gables, Hialeah, Miami Beach, Surfside, Sweetwater and special water tax districts in Dade County), Naples (and East Naples), Ocala, Orlando, Ormond Beach, Palatka and Sanford.

INTERSTATE COMMON CARRIER WATER SUPPLIES

The program of sanitary surveillance of water supplies to interstate carriers and caterers for potable and culinary uses was continued under a cooperative agreement with the USPHS on the basis of Interstate Quarantine Regulations and Drinking Water Standards, and the Florida Sanitary Code. Comprehensively, this activity comprises establishing and maintaining adequate bacteriological sampling and examination schedules, health hazard elimination programs, surveillance of chemical and physical quality of water, inspection of facilities and review of operation of the supply, treatment and distribution works, followed by appropriate action to correct deficiencies.

Where bacteriological work is performed at a water plant, the feature of the program for review of laboratory facilities and procedures was continued through cooperation of Bureau of Laboratories.

Field work in survey and review of the water works operations was accomplished by regional and county personnel and division and USPHS staff members. During 1968, nine of the supplies were surveyed jointly by county, state and USPHS personnel. All actions and reporting were coordinated by the division, final reports with recommendations for classification of service being compiled and forwarded to regional office of USPHS.

During 1968, four new supplies for common carriers were added, one being in Charlotte County on the mainland for Gasparilla Island, which made possible discontinuing transportation of water by railroad tank car from Arcadia to Boca Grande for vessels there. Three were deleted, resulting in a total of 32 of these at year's end; numerical data by county are reflected in Table 51.

PUBLIC SWIMMING POOLS

Already large, the volume of pool construction took another sharp upward swing with the toal nearly $7.5 million estimated cost, a 47 per cent gain, as was the total number (over 700) pool projects approved, over the previous year. Table 48 shows the number of pool projects by county, including those approved by several of the counties with CHDs which have engineering staffs and have agreed to function in this regard. There were 342 projects for which plans and documents were received in the division, plus 23 brought forward from 1967, for total of 365. Of these, 298 new pool projects were approved, plans for 15 new filter installations and 22 revised plans for pools all were approved, two were filed for information, two were returned to the consulting engineers, and the remaining 26 were carried forward to 1969.

Although not discernible from the table, the fact that many of the pools are built for apartment houses, motels, trailer parks and hotels, all quite important in the "tourism" factor of Florida's economy, is borne out by the low average estimated cost ($10,480) again resulting from the many smaller facilities, which, however, do each include complete water recirculation, filtration and disinfection capability.

Operating permits are issued for new pools after being checked for proper functioning of pool water treatment and recirculation equipment and appurtenances of the facility. After permitting, the pools become a program item of the CHD involved, for sanitary supervision of their operation, and Table 48 also shows the number of pools by county location, there being more than 5200 total public pools under permit in the state by year's end.

Short schools for improvement of public pool operation and maintenance continued to be developed by some CHDs with assistance of the division. Total attendance of 171 was considerably lower, as was the number of CHDs participating, than in 1967. In Brevard County there were 80 pool operators in attendance; Broward (two schools) had 35; and Hillsborough had 56.

NATURAL BATHING PLACES

A continued need for inventorying all natural bodies of water over the state where bathing and swimming by the public is allowed by consent of the owner, and placing these under permit where appropriate, is reflected in Table 48 by virtue of the meager list. The relatively small number of permitted bathing places listed by county was increased in 1968 by only three new permits issued for one each in Hillsborough, Sarasota and Volusia Counties.

TABLE 47

WATER PROJECTS APPROVED WITH CAPACITY INCREASE, AND ESTIMATED COST, BY COUNTY, FLORIDA, 1968

COUNTY	Projects Approved	Capacity Increase MGD*	ESTIMATED COSTS Water Supply	ESTIMATED COSTS Distribution	ESTIMATED COSTS Total
STATE	855	104.574	$9,661,872	$22,315,235	$31,977,107
Alachua	11	0.249	7,600	1,809,125	1,816,725
Baker	....	....	....	....	....
Bay	5	1.224	74,300	71,200	145,500
Bradford	....	....	....	....	....
Brevard	27	10.000	670,000	552,914	1,222,914
Broward	110	5.223	832,360	2,408,064	3,240,424
Calhoun	....	....	....	....	....
Charlotte	13	....	....	694,150	694,150
Citrus	7	0.929	14,000	236,850	250,850
Clay	12	4.978	109,000	136,270	245,270
Collier	29	0.861	81,600	1,074,945	1,156,545
Columbia	....	....	....	....	....
Dade	137	5.030	1,784,550	3,854,951	5,639,501
De Soto	1	0.072	....	2,000	2,000
Dixie	1	....	....	14,000	14,000
Duval	41	10.147	685,185	622,785	1,307,970
Escambia	15	4.730	216,815	263,647	480,462
Flagler	....	....	....	....	....
Franklin	....	....	....	....	....
Gadsden	1	1.000	2,000	110,000	112,000
Gilchrist	1	0.432	15,240	1,789	17,029
Glades	1	0.072	500	1,500	2,000
Gulf	....	....	....	....	....
Hamilton	1	1.144	40,200	23,350	63,550
Hardee	1	1.440	25,000	....	25,000
Hendry	3	0.144	7,500	6,000	13,500
Hernando	6	0.453	37,000	96,000	133,000
Highlands	4	2.880	50,000	....	50,000
Hillsborough	17	6.500	182,700	1,434,720	1,617,420
Holmes	....	....	....	....	....
Indian River	8	0.720	110,000	245,200	355,200
Jackson	2	0.432	35,720	159,280	195,000
Jefferson	....	....	....	....	....
Lafayette	1	0.504	20,000	60,000	80,000
Lake	9	1.152	6,300	41,200	47,500
Lee	31	1.152	120,500	612,253	732,753
Leon	3	0.318	4,000	32,500	36,500
Levy	1	0.108	35,000	35,000	70,000
Liberty	....	....	....	....	....
Madison	....	....	....	....	....
Manatee	14	0.360	15,000	170,133	185,133
Marion	6	0.924	24,550	56,250	80,800
Martin	6	0.144	5,000	249,250	254,250
Monroe	3	....	....	41,000	41,000
Nassau	....	....	....	....	....
Okaloosa	8	0.648	48,400	108,300	156,700
Okeechobee	2	....	....	49,000	49,000
Orange	40	7.056	900,000	387,704	1,287,704
Osceola	6	0.999	2,270	28,127	30,397
Palm Beach	65	0.567	571,772	1,251,177	1,822,949
Pasco	20	3.111	46,300	155,250	201,550
Pinellas	61	2.880	377,000	2,134,627	2,511,627
Polk	7	5.04	137,000	240,000	377,000
Putnam	1	....	....	13,000	13,000
St. Johns	3	2.492	79,000	91,046	170,046
St. Lucie	13	0.288	108,870	113,280	222,150
Santa Rosa	7	1.504	164,000	635,000	799,000
Sarasota	39	2.489	711,000	716,943	1,427,943
Seminole	25	1.613	27,940	298,217	326,157
Sumter	3	0.888	1,000	4,750	5,750
Suwannee	1	0.936	20,600	....	20,600
Taylor	....	....	....	....	....
Union	....	....	....	....	....
Volusia	21	4.186	1,146,900	638,888	1,785,788
Wakulla	1	0.144	25,000	173,000	198,000
Walton	4	1.411	83,200	160,600	243,800
Washington	....	....	....	....	....

*Million gallons per day.

TABLE 48

PERMITS ISSUED FOR SWIMMING POOL, NATURAL BATHING PLACES, WATER WELLS AND PLANS APPROVED FOR PROPOSED PUBLIC SWIMMING POOLS, BY COUNTY, FLORIDA, 1968

COUNTY	PERMITS ISSUED				Plans Approved for Proposed Public Swimming Pools	
	Swimming Pools*	Natural Bathing Places*	Water Supply Wells	Swimming Pools	Number	Estimated Cost
STATE	5,237	66	381	512	713	$ 7,467,714
Alachua	51	....	10	11	8	134,200
Baker	1	....	....	....	....	....
Bay	118	....	3	12	18	162,000
Bradford	7	....	....	....	....	....
Brevard	135	....	11	27	17	218,435
Broward	1,253	....	6	99	169**	1,589,450
Calhoun	1	....	....	....	....	....
Charlotte	10	....	....	4	3	31,500
Citrus	11	....	11	2	....	....
Clay	8	....	....	....	3	34,000
Collier	71	....	13	18	19	211,120
Columbia	9	....	1	....	2	9,000
Dade	1,310	....	3	110	154**	1,583,531
De Soto	2	....	....	....	....	....
Dixie	....	....	....	....	1	10,000
Duval	170	....	12	17	30	344,000
Escambia	60	....	4	3	8	85,000
Flagler	3	....	....	....	....	....
Franklin	....	....	....	....	....	....
Gadsden	5	....	1	1	....	....
Gilchrist	....	....	....	....	....	....
Glades	....	....	1	....	....	....
Gulf	....	....	3	....	....	....
Hamilton	2	1	1	....	....	....
Hardee	....	....	1	....	....	....
Hendry	5	....	....	2	1	11,900
Hernando	3	....	12	....	1	5,000
Highlands	13	1	3	10	2	32,760
Hillsborough	129	9	21	20	23**	259,650
Holmes	2	....	1	1	....	....
Indian River	24	1	1	11	2	25,000
Jackson	7	....	....	....	....	....
Jefferson	2	....	....	....	....	....
Lafayette	....	....	....	....	....	....
Lake	32	1	11	4	4	42,500
Lee	85	....	16	29	20	197,500
Leon	45	3	5	4	18	106,800
Levy	6	....	....	....	....	....
Liberty	1	....	....	....	....	....
Madison	2	....	....	....	....	....
Manatee	25	....	4	3	4	33,000
Marion	59	....	31	2	1	8,000
Martin	17	....	2	7	3	6,400
Monroe	47	....	....	....	2	16,500
Nassau	21	....	....	....	....	....
Okaloosa	30	....	7	4	13	242,000
Okeechobee	5	....	....	....	....	....
Orange	113	1	21	19	29	402,000
Osceola	6	....	10	1	1	16,000
Palm Beach	421	1	14	34	53**	526,735
Pasco	11	....	34	2	....	....
Pinellas	348	5	1	20	37	330,763
Polk	72	3	12	3	4**	71,000
Putnam	10	....	3	....	1	15,000
St. Johns	40	....	5	1	1	17,000
St. Lucie	23	....	6	3	1	35,000
Santa Rosa	8	....	2	1	1	9,000
Sarasota	136	5	33	7	31	268,100
Seminole	16	4	4	3	3	30,000
Sumter	5	....	5	....	1	39,870
Suwannee	3	....	1	....	....	....
Taylor	14	....	....	....	....	....
Union	....	....	....	....	....	....
Volusia	216	3	26	17	23	328,000
Wakulla	2	1	6	....	....	....
Walton	3	....	3	....	1	25,000
Washington	3	1	....	....	....	....

TABLE 49

WATER PLANTS VISITED, NUMBER OF VISITS AND EXISTING PLANTS, BY COUNTY, FLORIDA, 1968

COUNTY	Plants Visited*	Number of Visits	Existing Plants
STATE	73	149	1084
Alachua	2	2	23
Baker	....	....	2
Bay	3	7	14
Bradford	....	....	3
Brevard	3	10	11
Broward	3	8	37
Calhoun	....	....	4
Charlotte	2	5	5
Citrus	....	....	13
Clay	....	....	13
Collier	1	3	10
Columbia	....	....	4
Dade	6	12	51
De Soto	1	4	3
Dixie	3	9	6
Duval	4	4	99
Escambia	....	....	33
Flagler	2	2	3
Franklin	....	....	6
Gadsden	....	....	6
Gilchrist	....	....	1
Glades	1	1	4
Gulf	1	1	4
Hamilton	1	3	3
Hardee	....	....	4
Hendry	1	2	2
Hernando	....	....	27
Highlands	....	....	9
Hillsborough	2	3	26
Holmes	....	....	2
Indian River	1	1	8
Jackson	....	....	12
Jefferson	....	....	1
Lafayette	1	3	1
Lake	....	....	53
Lee	5	11	20
Leon	1	1	34
Levy	3	5	14
Liberty	....	....	2
Madison	....	....	6
Manatee	1	2	32
Marion	2	5	17
Martin	....	....	12
Monroe	....	....	1
Nassau	....	....	5
Okaloosa	....	....	22
Okeechobee	1	1	4
Orange	1	3	93
Osceola	....	....	5
Palm Beach	5	8	61
Pasco	1	1	50
Pinellas	2	2	13
Polk	2	2	38
Putnam	1	5	6
St. Johns	2	3	6
St. Lucie	1	6	8
Santa Rosa	....	....	9
Sarasota	2	3	24
Seminole	1	3	36
Sumter	....	....	14
Suwannee	....	....	2
Taylor	....	....	3
Union	....	....	2
Volusia	2	6	24
Wakulla	2	2	8
Walton	....	....	5
Washington	....	....	5

*By Central Office Personnel.

TABLE 50
WATER AND SEWAGE WORKS OPERATORS SHORT SCHOOLS,* FLORIDA, 1968

Short School	Voluntary Certification Examination					
	Applicants		Number Taking Exam		Number Passing Exam	
	Water	Sewage	Water	Sewage	Water	Sewage
Annual (Univ. of Fla.)						
Class "A" Exams . .	14	12	11	12	7	8
Class "B" Exams . .	17	23	14	21	11	13
Proctored Class "B" .	4	8	4	8	2	7
Total Class "B" Exams	21	31	18	29	13	20
Total Class "A" & "B" Exams	35	43	29	41	20	28
Proctored Class "C" Exams						
Region I (NW Fla.) .	1	5	1	5	0	3
Region II (NE Fla.) .	4	7	3	6	2	4
Region III (Central) .	17	10	16	9	4	6
Region IV (W. Cent.)	10	17	9	17	7	14
Region V (Dade) . .	3	4	3	3	3	3
Region VI (Palm Bch.)	7	4	6	4	4	4
Region VII (Broward)	9	9	8	9	4	5
Region VIII (SW Fla.)	5	15	5	15	4	8
Region IX (Brevard)	2	12	2	12	2	7
Region X (Polk) . . .	1	0	1	0	1	0
Region XI (SE Fla.) .	2	3	2	3	2	3
Total Class "C" Exams	61	86	56	83	33	57
Total "A", "B", and "C" Exams	96	129	85	124	53	85

*This is a program of inservice training and home study under the aegis of the State Board of Health carried out jointly with the Division of Continuing Education of the University of Florida; the Florida Water and Pollution Control Operators Association; Florida Section, American Water Works Association; and Florida Pollution Control Association.

To be examined for Class "C", the operator must have four equivalents (in years of experience and education); for Class "B", he must have eight equivalents; for Class "A", he must have twelve equivalents.

TABLE 51
SANITATION OF WATER SUPPLIES SERVING INTERSTATE CARRIERS, FLORIDA, 1968

County	Number of Supplies	Type Carrier Served			Ownership of Supply		Status of Supplies at Year's End
		Air	Rail	Vessel	Municipal	Private	
Bay	2	. . . . . .	. . . . . .	X	1	1	Approved
Brevard	2	X	. . . . . .	X	2	. . .	Approved
Broward	2	X	. . . . . .	X	2	. . .	Approved
Charlotte	1	. . . . . .	. . . . . .	X	. . . . . .	1	Approved
Citrus	1	. . . . . .	. . . . . .	X	. . . . . .	1	No current report
Collier	1	. . . . . .	X	. . . .	1	. . .	Approved
Dade	1	X	X	X	1	. . .	Approved
Duval	2	X	X	X	2	. . .	Approved
Escambia	1	X	X	X	1	. . .	Provisional
Gulf	1	. . . . . .	X	. . . .	1	. . .	Approved
Hillsborough . .	2	X	. . . . . .	X	1	1	Approved
Lee	1	X	X	. . . .	1	. . .	Provisional
Leon	1	X	X	. . . .	1	. . .	Approved
Orange	3	X	X	. . . .	2	1	Approved
Palm Beach . .	3	X	. . . . . .	X	3	. . .	Approved
Pasco	1	. . . . . .	X	. . . .	. . . . . .	1	Approved
Pinellas	1	. . . . . .	X	X	1	. . .	Approved
Polk	1	. . . . . .	X	. . . .	1	. . .	Approved
St. Lucie	1	. . . . . .	. . . . . .	X	1	. . .	Approved
Seminole	1	. . . . . .	X	. . . .	1	. . .	Approved
Sumter	1	. . . . . .	X	. . . .	1	. . .	Approved
Volusia	1	X	. . . . . .	. . . .	1	. . .	Approved
Walton	1	. . . . . .	. . . . . .	X	. . . . . .	1	No current report
Totals	32	. . . . . .	. . . . . .	. . . .	25	7	. . . .

BUREAU OF VITAL STATISTICS

EVERETT H. WILLIAMS, JR., M.S., HYG.
Director

The year 1968 was one of modest change for the bureau. Several new projects were added to the mechanical data processing system and several other existing operations were revised for more efficient operation.

Statistical consultation was provided for many divisions of the organization and for most of the proposed special projects. The bureau director worked closely with the Office of Planning in the study of new projects, with particular emphasis being given to program evaluation.

During the latter part of the year, efforts were directed to the development of a program-planning and budgeting system for the State Board of Health (SBH).

New regulations were approved to implement the changes in the Florida Statutes enacted by the 1967 Legislature. This was the first full year of operation with the increased fees. A total of $563,256.55 was collected and forwarded to the state treasurer.

DIVISION OF DATA PROCESSING

HAROLD F. GOODWIN
Director

This division is primarily a service division which provides systems and data processing support to all other bureaus, divisions, and county health departments (CHD), as well as special public health projects. The process of gathering such a wide variety of fiscal, statistical, and special public health data has resulted in the development of an extensive array of information which is utilized on an agency-wide basis for project planning and program evaluation.

DATA PROCESSING MANAGEMENT BOARD

Realizing the importance of data processing and the far-reaching impact of the computer age in state government, the 1967 Legislature enacted the Florida Electronic Data Processing Management Act. This act created the Data Processing Management Board (DPMB), which was charged with the responsibility of establishing and administering data processing centers, consolidation and community use of equipment, and coordination of systems and programming efforts. The DPMB has designated Jacksonville as a data processing center site, and the SBH will play an important role in its development.

EXPANDED DATA PROCESSING FACILITIES

The division expanded operating facilities during the year by acquiring adjacent rooms which provided additional storage areas and expansion of the key punch section.

The conversion of projects from unit record processing to computer has resulted in the release of most IBM unit record equipment; providing additional working space in the computer area, as well as substantial savings in equipment rental.

MAJOR SYSTEMS REVISIONS

Several major systems revisions took place during the year. These were the result of improved computer techniques or the need to expand the data presently being used for additional reports.

Many computer programs, documentation, and procedures were revamped in the early spring to accommodate the conversion of monthly payroll to a biweekly system. The SBH was the first agency under the Merit System to convert to biweekly payroll, with many other agencies adopting the processing methods developed by this division.

The Venereal Disease Reporting System (VDRS), developed and implemented as a cooperative effort with the National Communicable Disease Center (NCDC) and the Division of Epidemiology, provided extensive amounts of detailed statistics regarding VD contact information which was used for local program evaluation and source data for nation-wide reporting. The implementation of VDRS was considered a milestone, since Florida was one of the first states to develop a system for state reporting with rapid feedback to the NCDC.

PROJECTS INSTALLED OR EXPANDED

The Clinical Laboratory Act passed by the 1967 Legislature required that over 5000 clinical laboratory personnel and laboratories be registered or certified by the SBH. In cooperation with the Bureau of Laboratories and the Office of Registration and Drug Administration, this division developed a reporting system for the production of statistics and certificates of registration or licensure on a recurring basis, which was implemented during the summer.

The system for conversion of the Bedding Inspection Program from manual record keeping to computer has been completed, and installation will take place early in 1969. This program was responsible for registration and revenue collection of over 8000 renovators, distributors, manufacturers, and wholesalers of bedding materials produced in, or shipped to, Florida, and supplied accounting data ($120,573 per year) as well as statistical and registration reporting.

The Personnel/Payroll Accounting System (P/PAS) developed for use at the SBH has been expanded to incorporate variable deductions such as United Fund, Credit Union, and United States Savings Bonds. The P/PAS, which was the result of combining many files relative to agency employees into one master record, was reviewed in detail by the staff of the Florida Industrial Commission, resulting in their adoption of this system, with minor modifications, for the processing of personnel statistical reporting, leave accounting, payroll data, etc. The basic record used for maintenance of this master file was the Report of Personnel Action form.

The re-indexing of Florida recorded births continued at a heavy rate of production. A projected completion date of 1970 has been established to bring this project to the point where all recorded births to date will be in data processing form (magnetic tape). The immediate purpose of this re-indexing project is to facilitate manual certificate searching using computer produced alphabetical listings. However, there are long-range plans for further automation in order that remote information retrieval devices located in the Division of Vital Records will be used to interrogate and search birth files via computer.

The limited capacity of present computer equipment continued to be the major problem preventing this division from expanding data processing services to many areas and public health programs.

DIVISION OF PUBLIC HEALTH STATISTICS

OLIVER H. BOORDE, M.P.H.
Director

This division had two primary responsibilities: presentation and analyses of data obtained from vital records and special studies, and provision of statistical support and consultation to all bureaus and divisions at the State Board of Health.

During the year the division published the *Monthly Statistical Report*, which presented current data on births, deaths, marriages and divorces. Accompanying this report was an article by the division staff on a subject of public health interest. The reports were distributed to County Health Departments (CHD), hospitals, libraries, schools, and others who request them. The mailing list was approximately 1000 copies per month. The division also published an annual summary and analysis of data from vital records entitled *Florida Vital Statistics*. This series, which has been maintained for over 30 years, presented a complete picture of the Florida vital statistics situation for the year, also a brief review was made of past vital rate trends. In addition to these formal reports, throughout the year, the division provided vital statistics data from unpublished sources to physicians, faculty members, students, and others.

In the area of statistical consultation, the division provided services in practically every area of conducting a special study or survey: design of forms, sample framework, data collection systems, tabulating procedures, statistical analysis and interpretation, and presentation of final reports. Assistance was provided on a number of special projects conducted during 1968. Two special programs involving a substantial portion of time were the Statistical and Tabulating Center for Cancer Registry Data (SCCR) and the Community Study on Pesticides.

The SCCR program was begun in July, 1963, in cooperation with the Bureau of Adult Health and Chronic Diseases. Its principal objective was to assemble the vast amount of valuable data being collected by the approved tumor clinics throughout the state into a central data collection and analysis unit. The unit was equipped to present and interpret cancer data to medical staffs of tumor clinics. This information proves invaluable in evaluating the effectiveness of the state's research and service programs. An annual report of data collected by the center was available upon request.

The Community Pesticides Study was described in the report of the Bureau of Research. This division provided general statistical consultation and services to the project and was responsible for designing and initiating a study to investigate the relative morbidity and mortality among persons occupationally exposed to pesticides. In this study of the occupationally exposed, pest control personnel registered with the Bureau of Entomology were used as the basic study group. Federal funds for this phase of the project were withdrawn as of November 1, and a final report is in preparation.

During the spring of 1968 the division was assigned the responsibility of designing a large scale probability sample survey of Hillsborough County. The division was also in charge of field work and data collection in which nearly 3000 persons were interviewed in regard to their history of viral infections and blood samples were obtained from over 2000 individuals. (For a description of the objectives of this highly successful survey see Bureau of Preventable Diseases elsewhere in this report).

VITAL STATISTICS SUMMARY

The following is a brief summary of preliminary vital statistics for 1968. A more detailed analysis of final data will be presented in *Florida Vital Statistics, 1968*. Preliminary birth and death figures have been used in this report because of a time lag in receipt of records from the counties and other states and the extensive processing required to summarize the data in final form.

POPULATION

Florida remained the ninth most populous state in the nation with a population estimate of 6,202,000 as of July 1, 1968. The population increase during the past year represents a two per cent gain compared with an average rise of three per cent since the 1960 U.S. Census. The average monthly increase during 1968 was 10,000 persons of which 2854 (28.5 per cent) were added through natural increase (the net difference between births and deaths), while the remaining 7146 (71.5 per cent) were in-migrants into the state. Monthly gains of 4421 (34.5 per cent) and 8479 (65.7 per cent) were recorded for natural increase and in-migration, respectively, during the 1960-1967 period. Under the current trends of a rising death rate, falling birth rate, and a declining rate of in-migration, we can expect a continued drop in the *rate* of population growth.

Latest estimates placed Florida's white population at 5,102,300 and the nonwhite at 1,099,700. The white race accounted for 82.3 per cent of the state's total population compared with 82.1 per cent in 1960.

BIRTHS

The number of births to Florida residents during 1968 showed a slight rise over 1967 figures (100,971 versus 100,836). This was the first year since 1961 that this had occurred. However, the birth rate, presently at 16.3 per 1000 population, continued to decline but at a slower pace than during the past years.

The decline in the crude birth rate has been more rapid for Florida than in the nation as a whole due to its attraction as a retirement center, which results in a relatively large — and growing — segment of its population being outside of the childbearing ages. The most recently reported U.S. birth rate (for year ending in November, 1968) is placed at 17.3 per 1000 population.

Both race groups have contributed to the steady drop in birth rate which has been in effect since 1956. Moreover, the rate for nonwhites is declining more rapidly than that for whites. The rate for the whites fell from a 1947 high of 23.6 to a current level of 14.6. During this period the whites experienced a noticeable upsurge in rate in the early 1950's before continuing the long-run downtrend. The birth rate for Florida's nonwhite hit an all time high of 38.8 in 1956 and has since dropped to the present rate of 23.9. The recent advances in socio-economic opportunities among nonwhites and wider availability of contraceptives have no doubt been factors in the reduction.

DEATHS

Based on provisional data, 68,710 deaths occurred among Florida residents during 1968. This was the 22nd successive record setting year for the death figure. The crude death rate (11.1 per 1000 population for 1968) continued a slowly rising trend which began in the mid-1950's. An analysis of the 1967 mortality situation revealed that after eliminating the effect of age differences, Florida experienced slightly lower rates for whites and slightly higher rates for nonwhites than the United States as a whole. There is no reason to think that this situation has changed over the past year.

The preliminary death totals show new highs for both races with 58,022 white and 10,688 nonwhite deaths. The death rate of 11.4 for whites represents a 6.5 per cent rise over the previous year while the nonwhite rate rose only 3.2 per cent from 9.4 in 1967 to 9.7 in 1968.

CAUSE OF DEATH

The ten leading causes of death for 1968 and comparative data for 1958 are presented in Table 54. Diseases of the heart, malignant neoplasms, and cerebral vascular disease have held their positions as the state's and nation's leading killers for a number of years; and there is little prospect that this situation will change in the near future.

The most pronounced change in ranking was the rise of "bronchitis, emphysema, and asthma" from 11th place in 1958 to sixth in 1968. The only cause of death in the "leading ten" exhibiting a decline in both rate and ranking was "diseases of early infancy." These diseases experienced a drop in rate from 41.4 per 100,000 population to 21.8 between 1958 and 1968 (down 47 per cent). During the past decade suicides fell from ninth position to 12th despite a slight rise in rate from 13.2 in 1958 to 13.9 in 1968.

INFANT DEATHS

In 1968 infant deaths totaled 2433 (provisional) of which 1475 were white and 958 were nonwhite. This yielded a slight rise in rate for the total from 23.6 per 1000 live births in 1967 to 24.1 in 1968. This is the net result of a rise in the rate for whites (up from 18.6 in 1967 to 19.7 in 1968) and a continued fall in the rate for the nonwhites (down from 37.2 to 36.5).

MARRIAGES–DIVORCES

A record 62,351 marriages were performed in Florida in 1968, exceeding the total for 1967 by 6772 – an increase of 12.1 per cent. The marriage rate for 1968 was 10.1 per 1000 population, 10 per cent above the rate for 1967. Both white and nonwhite races contributed to the rise in marriages with current rates of 10.5 and 8.1, respectively.

The 31,655 divorces (including annulments) recorded in 1968 was also a new record for Florida. The divorce-annulment rate for 1968 was 5.1 per 1000 population, compared with a rate of 4.7 for the previous year. The ratio of marriages to divorces has continued steady at approximately 2.0 for the past decade.

DIVISION OF VITAL RECORDS

CHARLES H. CARTER
Director

The primary responsibility of this division was the collection, protection, preservation, legal amendment and issuance of certified copies of vital records, which consist of records of births, deaths, stillbirths, marriages, divorces, adoptions, annulments and legal changes of name.

During 1968 a total of 265,810 certificates of all kinds were received, processed and filed in permanent binders. These include 100,056 births; 72,659 deaths and stillbirths; 61,506 marriages and 31,589 divorce reports. A total of 9341 records were also amended or corrected.

The processing of adoptions for Florida born persons continued at a high rate. A total of 6428 final decrees of adoption were processed during the period. In processing of adoptions it was necessary to make contact with parents, attorneys, welfare and child placement organizations, clerks of the circuit court, physicians, hospital administrators and others.

Request from welfare, social security, veterans administration and other agencies for which no fee was charged increased slightly. Tabulation showed that of 133,216 searches of vital records, 16.9 per cent were made without charge.

To aid in evaluation of the relative efficiency between registration districts, the Vital Statistics Scoreboard was published annually (See Table 60).

TABLE 52
ACTIVITIES OF THE DIVISION OF VITAL RECORDS, FLORIDA, 1967 and 1968

ACTIVITY	1967	1968	Per Cent Change
Current certificates filed	249,134	265,810	+ 6.7
Delayed birth certificates filed . . .	2,259	2,126	- 5.9
Amended certificates filed for adoption	5,875	6,428	+ 9.4
Adoption reports forwarded to other states	1,057	1,332	+26.0
Legitimations processed	993	858	- 13.6
Legal changes of name received . .	1,168	1,222	+ 4.6
Requests for certifications or searches			
Total	136,590	133,216	- 2.5
Fee paid	113,617	110,500	- 2.7
Free	22,973	22,716	- 1.1
Photostat certifications made . . .	147,173	121,594	- 17.4
Birth registration cards made	26,400	22,966	- 13.0
Fees collected and forwarded to State Treasurer	$325,973.79	$563,256.55	+72.8

TABLE 53
RESIDENT BIRTHS AND DEATHS WITH RATES PER 1000 POPULATION, FLORIDA, 1920, 1930, 1940, 1950, AND 1958-1968

YEAR	MIDYEAR POPULATION ESTIMATES	BIRTHS	BIRTH RATES	DEATHS	DEATH RATES
1968*	6,202,000	100,971	16.3	68,710	11.1
1967	6,081,400	99,998	16.4	63,499	10.4
1966	5,941,000	102,952	17.3	62,356	10.5
1965	5,805,000	106,604	18.4	59,231	10.2
1964	5,705,000	113,966	20.0	56,753	9.9
1963	5,531,000	114,729	20.7	55,609	10.1
1962	5,392,000	115,248	21.4	52,639	9.8
1961	5,205,000	116,683	22.4	48,690	9.4
1960	4,999,000	115,610	23.1	47,937	9.6
1959	4,790,000	112,733	23.5	44,179	9.2
1958	4,571,000	108,014	23.6	43,353	9.5
1950	2,821,000	64,370	22.8	26,525	9.4
1940	1,915,100	33,696	17.6	21,458	11.2
1930**	1,457,100	26,991	18.3	18,215	12.3
1920**	992,800	19,540	19.7	12,674	12.8

*Provisional Data.

**Recorded rather than resident data.

TABLE 54
TEN LEADING CAUSES OF DEATH, WITH RATES PER 100,000 POPULATION, BY RACE, FLORIDA, 1958 AND 1968

1968 RANK	CAUSE OF DEATH 8th REVISION (INTERNATIONAL LIST NUMBERS)	DEATHS						DEATH RATES						1958 RANK
		1968*			1958			1968*			1958			
		Total	White	NonWh.	Total	White	NonWh.	Total	White	NonWh.	Total	White	NonWh.	
1	Diseases of the Heart (390-398,402,404, 410-429)	24,958	22,235	2,723	15,280	13,212	2,068	402.4	435.8	247.6	334.3	352.0	252.9	1
2	Malignant Neoplasm (140-209)	11,933	10,562	1,371	6,639	5,725	914	192.4	207.0	124.7	145.2	152.5	111.8	2
3	Cerebral Vascular Disease (430-438)	7,963	6,722	1,241	5,120	3,975	1,145	128.4	131.7	112.8	112.0	105.9	140.0	3
4	Accidents (E800-E949)	4,041	3,123	918	2,799	2,073	726	65.2	61.2	83.5	61.2	55.2	88.8	4
5	Influenza and Pneumonia (470-474, 480-486)	2,461	1,927	534	1,562	1,004	558	39.7	37.8	48.6	34.2	26.8	68.2	6
6	Bronchitis, Emphysema, and Asthma (490-493)	1,486	1,375	111	542	470	72	24.0	26.9	10.1	11.9	12.5	8.8	11
7	Diseases Peculiar to Early Infancy (760-778)	1,351	852	499	1,893	1,159	734	21.8	16.7	45.4	41.4	30.9	89.8	5
8	Diabetes Mellitus (250)	1,123	839	284	611	470	141	18.1	16.4	25.8	13.4	12.5	17.2	7
9	Arteriosclerosis (440)	1,065	959	106	604	511	93	17.2	18.8	9.6	13.2	13.6	11.4	8
10	Cirrhosis of Liver (571)	1,019	884	135	555	488	67	16.4	17.3	12.3	12.1	13.0	8.2	10
.	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	
12	Suicide (E950-E959)	863	830	33	602	577	25	13.9	16.3	3.0	13.2	15.4	3.1	9

*Provisional Data.

TABLE 55

RESIDENT DEATHS AND DEATH RATES, BY RACE, FLORIDA, 1968 (PRELIMINARY)

Cause of Death (Numbers in Parentheses Refer to the 8th International List of Causes of Death)	Deaths			Death Rates***		
	Total	White	Non-white	Total	White	Non-white
All Causes	68,710	58,022	10,688	11.1	11.4	9.7
Bacillary Dysentery and Amebiasis (004, 006)	2	2	0	†	†	0.0
Enteritis and other Diarrhea Diseases (008,009)	87	51	36	1.4	1.0	3.3
Tuberculosis, all forms (010-019)	204	126	78	3.3	2.5	7.1
Diphtheria (032)	2	0	2	†	0.0	0.2
Whooping Cough (033)	4	0	4	0.1	0.0	0.4
Streptococcal Sore Throat and Scarlet Fever (034)	3	3	0	†	0.1	0.0
Meningococcal Infections (036)	27	17	10	0.4	0.3	0.9
Tetanus (037)	11	7	4	0.2	0.1	0.4
Septicemia (038)	146	111	35	2.4	2.2	3.2
Acute Poliomyelitis (040-043)	0	0	0	0.0	0.0	0.0
Measles (055)	0	0	0	0.0	0.0	0.0
Arthropod-Borne Encephalitis (062-064)	0	0	0	0.0	0.0	0.0
Other Acute Infectious Encephalitis (065)	8	6	2	0.1	0.1	0.2
Infectious Hepatitis (070)	26	20	6	0.4	0.4	0.5
Syphilis and its Sequelae (090-097)	22	9	13	0.4	0.2	1.2
Other Infective and Parasitic Diseases (000-136 Exc. above causes)	79	56	23	1.3	1.1	2.1
Malignant Neoplasms (140-209)	11,933	10,562	1,371	192.4	207.0	124.7
Buccal Cavity and Pharynx (140-149)	314	272	42	5.1	5.3	3.8
Digestive System, not secondary (150-159)	3,285	2,916	369	53.0	57.2	33.6
Respiratory System, not secondary (160-163)	2,800	2,529	271	45.1	50.0	24.6
Breast (174)	926	827	99	14.9	16.2	9.0
Genital Organs (180-187)	1,542	1,283	259	24.9	25.1	23.6
Urinary Organs (188, 189)	571	511	60	9.2	10.0	5.5
Other and unspecified sites (170-173, 190-199)	1,425	1,257	168	23.0	24.6	15.3
Leukemia (204-207)	513	461	52	8.3	9.0	4.7
Other Neoplasms of Lymph. and Hematopoietic Tissue (200-203, 208, 209)	557	506	51	9.0	9.9	4.6
Benign and unspecified Neoplasms (210-239)	190	157	33	3.1	3.1	3.0
Diabetes Mellitus (250)	1,123	839	284	18.1	16.4	25.8
Anemias (280-285)	107	76	31	1.7	1.5	2.8
Meningitis, excluding Meningococcal and Tuberculosis (320)	81	39	42	1.3	0.8	3.8
Major Cardiovascular Diseases (390-448)	35,357	31,089	4,268	570.1	609.3	388.1
Diseases of Heart (390-398, 402, 404, 410-429)	24,958	22,235	2,723	402.4	435.8	247.6
Rheumatic Fever and Chronic Rheumatic Heart Disease (390-398)	584	512	72	9.4	10.0	6.5
Hypertensive Heart and Heart-Renal Disease (402, 404)	463	319	144	7.5	6.3	13.1
Ischemic Heart Disease (410-414)	22,536	20,335	2,201	363.4	398.5	200.1
Chronic Diseases of Endocardium and other Mycardium Insuff. (424, 428)	194	147	47	3.1	2.9	4.3
Other Diseases of Heart (420-423, 425-427, 429)	1,181	922	259	19.0	18.1	23.6
Other Hypertension (400, 401, 403)	357	250	107	5.8	4.9	9.7
Vascular Lesions of Central Nervous System (430-438)	7,963	6,722	1,241	128.4	131.7	112.8
Arteriosclerosis (440)	1,065	959	106	17.2	18.8	9.6
Aortic Aneurysm (Nonsyph.) and certain other Arterial Diseases (441-448)	1,014	923	91	16.3	18.1	8.3
Acute Bronchitis and Bronchiolitis (466)	30	27	3	0.5	0.5	0.3
Influenza (470-474)	124	95	29	2.0	1.9	2.6
Pneumonia, including Pneumonia of newborn (480-486)	2,337	1,832	505	37.7	35.9	45.9
Bronchitis, Emphysema, and Asthma (490-493)	1,486	1,375	111	24.0	26.9	10.1
Peptic Ulcer (531-533)	331	286	45	5.3	5.6	4.1
Appendicitis (540-543)	41	34	7	0.7	0.7	0.6
Hernia and Intestinal Obstruction (550-553, 560)	240	203	37	3.9	4.0	3.4
Cirrhosis of Liver (571)	1,019	884	135	16.4	17.3	12.3
Choleithiasis, Cholecystitis, and Cholangitis (574, 575)	123	110	13	2.0	2.2	1.2
Acute Nephritis and Nephrotic Syndrone (580, 581)	56	36	20	0.9	0.7	1.8
Chronic and unspecified Nephritis (582-584)	233	147	86	3.8	2.9	7.8
Infections of Kidney (590)	392	298	94	6.3	5.8	8.5
Hyperplasia of Prostate (600)	103	83	20	1.7	1.6	1.8
Maternal Deaths (630-678)	36	14	22	3.6**	1.9**	8.4**
Congenital Anomlies (740-759)	559	440	119	9.0	8.6	10.8
Birth Injuries, Diff. Labor, Anoxia and Hypoxic Cond. (764-768, 772, 776)	780	511	269	12.6	10.0	24.5
Other Causes in early infancy (760-778 excl. above causes)	571	341	230	9.2	6.7	20.9
Symptoms, Senility, and Ill-defined Causes (780-796)	1,594	1,046	548	25.7	20.5	49.8
All other diseases (residual)	3,530	2,828	702	56.9	55.4	63.8
Accidents (E800-E949)	4,041	3,123	918	65.2	61.2	83.5
Motor Vehicle accidents (E810-E823)	2,068	1,671	397	33.3	32.7	36.1
All other accidents (E800-E807, E825-E949)	1,973	1,452	521	31.8	28.5	47.4
Suicide (E950-E959)	863	830	33	13.9	16.3	3.0
Homicide (E960-E978)	809	309	500	13.0	6.1	45.5
Infant Mortality (deaths under one year of age)	2,433	1,475	958	24.1*	19.7*	36.5*

†Less than 0.05.
*Per 1,000 live births.
**Per 10,000 live births.
***All causes per 1,000 population, specific causes per 100,000 population.

TABLE 56

RESIDENT DEATHS AND DEATH RATES, BY CAUSE, BY RACE, FLORIDA, 1967 (FINAL FIGURES)

Cause of Death (Numbers in Parentheses Refer to the International List of Causes of Death)	Deaths			Death Rates*		
	Total	White	Non-white	Total	White	Non-white
All Causes	63,499	53,510	9,989	10.4	10.7	9.4
Tuberculosis, all forms (001-019)	201	113	88	3.3	2.3	8.2
Syphilis and its sequelae (020-029)	67	40	27	1.1	0.8	2.5
Diphtheria (055)	1	0	1	†	0.0	0.1
Whooping Cough (056)	0	0	0	0.0	0.0	0.0
Meningococcal Infections (057)	23	10	13	0.4	0.2	1.2
Tetanus (061)	8	3	5	0.1	0.1	0.5
Acute Poliomyelitis (080)	0	0	0	0.0	0.0	0.0
Arthropod-Borne Encephalitis (082.0)	0	0	0	0.0	0.0	0.0
Other Acute Infectious Encephalitis (082.1-082.3)	13	7	6	0.2	0.1	0.6
Measles (085)	2	1	1	†	†	0.1
Infectious Hepatitis	30	24	6	0.5	0.5	0.6
Other Infective and Parasitic Diseases (001-138 excl. above causes)	207	148	59	3.4	3.0	5.4
Malignant Neoplasms (L40-205)	11,187	9,874	1,313	184.0	197.0	122.9
Buccal Cavity and Pharynx (140-148)	294	249	45	4.8	5.0	4.2
Digestive System, not spec. as secondary (150-156A, 157-159)	3,275	2,900	375	53.9	57.8	35.1
Respiratory System, not spec. as secondary (160-164)	2,500	2,247	253	41.1	44.8	23.7
Breast (170)	878	776	102	14.4	15.5	9.5
Genital Organs (171-179)	1,423	1,180	243	23.4	23.5	22.7
Urinary Organs (180, 181)	548	484	64	9.0	9.7	6.0
Other and unspecified sites (156.B, 165, 190-199, 200-205)	2,269	2,038	231	37.3	40.7	21.6
Benign Neoplasms and Neoplasms of unspecified Nature (210-239)	134	100	34	2.2	2.0	3.2
Asthma (241)	142	94	48	2.3	1.9	4.5
Diabetes Mellitus (260)	957	732	225	15.7	14.6	21.1
Anemias (290-293)	133	91	42	2.2	1.8	3.9
Meningitis, except Meningococcal and Tuberculous (340)	67	30	37	1.1	0.6	3.5
Major Cardiovascular-Renal Diseases (330-334, 400-468, 592-594)	33,283	29,301	3,982	547.3	584.5	372.8
Vascular Lesions affecting central Nervous System (330-334)	7,252	6,109	1,143	119.2	121.9	107.0
Diseases of Heart (400-443)	23,145	20,753	2,392	380.6	414.0	223.9
Rheumatic Fever and Chronic Rheumatic Heart Disease (400-416)	487	445	42	8.0	8.9	3.9
Arteriosclerotic Heart Disease, incl. Coronary Disease (420)	18,536	17,905	1,441	304.8	341.0	134.9
Nonrheu. Chronic Endocarditis and other Myocard. Degen. (421, 422)	1,311	1,149	162	21.6	22.9	15.2
Hypertensive Heart Disease (440-443)	1,492	1,016	476	24.5	20.3	44.6
Other Diseases of Heart (430-434)	1,319	1,048	271	21.7	20.9	25.4
Other Hypertensive Disease (444-447)	338	247	91	5.6	4.9	8.5
General Arteriosclerosis (450)	980	890	90	16.1	17.8	8.4
Aortic Aneurysm (Nonsyphilitic) and certain Circulatory Diseases (451-468)	1,219	1,064	155	20.0	21.2	14.5
Chronic and unspecified Nephritis (592-594)	349	238	111	5.7	4.7	10.4
Influenza (480-483)	34	21	13	0.6	0.4	1.2
Pneumonia, excluding Pneumonia of newborn (490-493)	1,825	1,418	407	30.0	28.3	38.1
Bronchitis (500-502)	197	185	12	3.2	3.7	1.1
Emphysema (without Bronchitis) and certain Bronchopulm. Disease (525-527)	1,323	1,221	102	21.8	24.8	9.5
Ulcer of Stomach and Duodenum (540, 541)	369	316	53	6.1	6.3	5.0
Appendicitis (550-553)	64	49	15	1.1	1.0	1.4
Hernia and Intestinal Obstruction (560, 561, 570)	335	281	54	5.5	5.6	5.1
Gastritis, Duodenitis, Enteritis and Colitis, excluding Diarrhea of newborn (543, 571, 572)	264	194	70	4.3	3.9	6.6
Cirrhosis of Liver (581)	1,017	880	137	16.7	17.6	12.8
Choelithiasis, Cholecystitis and Cholangitis (584, 585)	148	141	7	2.4	2.8	0.7
Acute Nephritis and Nephrosis (590-591)	33	23	10	0.5	0.5	0.9
Infections of Kidney (600)	452	339	113	7.4	6.8	10.6
Hyperplasia of Prostate (610)	119	100	19	2.0	2.0	1.8
Complications of Pregnancy, Childbirth and Puerperium (640-689)	26	8	18	2.6**	1.1**	6.6**
Congenital Malformations (750-759)	472	357	115	7.8	7.1	10.8
Birth Injuries, Postnatal Asphyxia and Atelectasis (760-762)	563	334	229	9.3	6.7	21.4
Infection of Newborn (763-768)	98	50	48	1.6	1.0	4.5
Other disease peculiar to newborn and immaturity unqualified (769-776)	838	520	318	13.8	10.4	29.8
Symptoms, Senility, and ill-defined causes (780-795)	1,335	853	482	22.0	17.0	45.1
All other Diseases (Residual)	2,135	1,671	464	35.1	33.3	43.4
Motor Vehicle Accidents (E810-E835)	1,832	1,454	378	30.1	29.0	35.4
All other Accidents (E800-E802, E840-E962)	2.011	1,478	533	33.1	29.5	49.9
Suicide (E963, E970-E979)	822	786	36	13.5	15.7	3.4
Homicide (E964, E980-E985)	732	263	469	12.0	5.2	43.9
Infant Mortality (deaths under one year of age)	2,361	1,361	1,000	23.8***	18.8***	37.1***

†Less than 0.05.
*All causes per 1,000 population, specific causes per 100,000 population.
**Per 10,000 live births.
***Per 1,000 live births.

TABLE 57

ESTIMATED POPULATION AND RESIDENT BIRTHS, DEATHS, AND INFANT DEATHS, BY RACE, BY COUNTY, FLORIDA, 1968 (PRELIMINARY)

COUNTY	Population 1968 Prov. Est.	Births			Deaths			Infant Deaths		
		Total	White	Non-white	Total	White	Non-white	Total	White	Non-white
State	6,202,000	100,971	74,729	26,242	68,710	58,022	10,688	2,433	1,475	958
Alachua	95,000	1,935	1,386	549	696	437	259	38	21	17
Baker†	8,300	181	134	47	64	49	15	4	2	2
Bay	69,000	1,380	1,124	256	520	433	87	23	20	3
Bradford	13,100	251	173	78	175	134	41	6	1	5
Brevard	231,000	4,284	3,687	597	1,126	988	138	78	57	21
Broward	498,400	7,715	5,436	2,279	5,994	5,358	636	175	87	88
Calhoun	7,900	140	119	21	94	84	10	4	3	1
Charlotte	21,400	181	164	17	449	433	16	7	6	1
Citrus	13,600	167	119	48	218	206	12	5	5	0
Clay	25,100	609	520	89	180	153	27	16	11	5
Collier	31,500	558	460	98	321	271	50	24	19	5
Columbia	25,000	483	326	157	234	171	63	11	5	6
Dade	1,139,500	17,215	12,602	4,613	12,304	10,785	1,519	374	222	152
De Soto	13,700	217	141	76	142	117	25	9	6	3
Dixie	5,000	114	89	25	33	27	6	2	1	1
Duval	515,100	9,825	7,095	2,730	4,591	3,177	1,414	218	135	83
Escambia	195,600	4,028	3,029	999	1,459	1,083	376	99	69	30
Flagler	5,100	85	35	50	66	49	17	4	1	3
Franklin	7,300	133	105	28	78	54	24	2	2	0
Gadsden	44,700	821	184	637	354	127	227	29	3	26
Gilchrist	3,400	53	44	9	30	28	2	0	0	0
Glades	3,800	58	35	23	38	26	12	5	2	3
Gulf	9,500	177	131	46	74	57	17	1	1	0
Hamilton	8,100	166	84	82	78	43	35	3	1	2
Hardee	14,800	294	256	38	166	153	13	7	7	0
Hendry	12,200	253	167	86	111	79	32	5	1	4
Hernando	13,400	192	143	49	218	183	35	12	4	8
Highlands	25,500	444	278	166	357	303	54	14	7	7
Hillsborough	460,000	8,200	6,557	1,643	4,772	3,988	784	194	122	72
Holmes	11,500	136	125	11	143	133	10	3	2	1
Indian River	34,500	601	390	211	395	346	49	19	10	9
Jackson	36,600	503	311	192	422	295	127	12	8	4
Jefferson	9,300	196	60	136	115	50	65	3	1	2
Lafayette	2,900	43	36	7	29	22	7	0	0	0
Lake	65,400	918	659	259	926	766	160	18	10	8
Lee	83,200	1,337	1,025	312	975	847	128	32	16	16
Leon	91,000	1,630	1,135	495	644	383	261	35	15	20
Levy	12,400	224	143	81	141	95	46	4	1	3
Liberty	2,900	52	40	12	33	27	6	1	1	0
Madison	14,900	248	91	157	133	69	64	8	2	6
Manatee	83,500	1,079	780	299	1,400	1,264	136	25	12	13
Marion	65,500	1,156	687	469	738	513	225	33	17	16
Martin	23,900	384	270	114	343	284	59	14	4	10
Monroe	62,500	1,158	1,038	120	415	355	60	28	23	5
Nassau	19,500	334	241	93	176	118	58	10	6	4
Okaloosa	85,000	1,590	1,430	160	370	340	30	33	31	2
Okeechobee	9,900	261	212	49	92	68	24	9	4	5
Orange	318,000	5,634	4,339	1,295	2,830	2,396	434	151	107	44
Osceola	21,500	340	277	63	350	314	36	8	4	4
Palm Beach	304,300	4,622	3,095	1,527	3,554	2,929	625	129	69	60
Pasco	52,000	654	568	86	1,107	1,036	71	19	14	5
Pinellas	450,000	5,016	3,882	1,134	8,490	8,101	389	126	84	42
Polk	244,000	4,023	3,028	995	2,427	1,973	454	101	65	36
Putnam	33,900	621	413	208	390	250	140	22	11	11
St. Johns	33,000	444	289	155	451	351	100	7	2	5
St. Lucie	49,500	901	493	408	575	411	164	31	17	14
Santa Rosa	35,300	753	689	64	239	219	20	15	12	3
Sarasota	104,000	1,077	882	195	1,679	1,584	95	18	16	2
Seminole	73,000	1,334	969	365	610	416	194	30	14	16
Sumter	14,000	249	147	102	170	129	41	8	5	3
Suwannee	17,300	288	208	80	183	131	52	7	4	3
Taylor	13,500	270	184	86	120	84	36	6	4	2
Union	6,600	81	55	26	59	45	14	2	0	2
Volusia	168,000	2,172	1,577	595	2,621	2,326	295	76	48	28
Wakulla	5,700	98	67	31	78	57	21	4	2	2
Walton	16,200	205	153	52	197	174	23	9	8	1
Washington	11,800	180	118	62	148	125	23	8	5	3

TABLE 58

ESTIMATED POPULATION, RESIDENT BIRTH AND DEATH RATES PER 1,000 POPULATION, AND RESIDENT INFANT DEATH RATES PER 1,000 LIVE BIRTHS, BY RACE, BY COUNTY, FLORIDA, 1967 (FINAL FIGURES)

COUNTY	1967 Midyear Population Estimate	Birth Rate			Death Rate			Infant Death Rate		
		Total	White	Non-white	Total	White	Non-white	Total	White	Non-white
State	6,081,400	16.4	14.5	25.4	10.4	10.7	9.4	23.8	18.8	37.1
Alachua**	92,000	21.4	19.3	28.5	7.4	5.9	12.5	18.8	13.9	29.6
Baker**	8,500	21.1	19.4	26.8	9.6	9.7	9.5	16.8	0.0	58.8*
Bay	68,500	20.2	18.9	27.7	8.0	7.5	10.5	18.8	18.1	21.4
Bradford	13,100	18.3	17.7	20.3	11.8	11.4	12.9	25.0	22.6	31.7*
Brevard	218,800	19.8	18.8	29.6	5.1	4.8	8.2	23.5	20.3	43.6
Broward	473,200	14.9	12.2	28.3	11.1	11.8	7.6	24.9	15.4	45.3
Calhoun	7,800	17.2	15.3	27.5	9.4	8.8	12.5	0.0	0.0	0.0*
Charlotte	20,200	9.0	8.5	22.5	20.6	20.9	12.5	16.5	12.2	55.6*
Citrus	13,500	12.7	10.1	32.5	14.9	15.0	13.8	23.3	33.3	0.0*
Clay	24,600	22.6	21.7	29.0	7.6	7.8	6.8	21.6	17.2	44.4*
Collier	29,900	17.8	16.5	29.4	8.9	7.8	18.1	33.8	27.1	65.9*
Columbia	25,000	19.6	19.5	20.0	9.8	9.9	9.7	32.6	29.5	39.5
Dade	1,118,400	15.0	12.8	26.7	10.3	10.7	8.1	23.6	18.2	37.0
De Soto**	13,400	15.7	12.5	26.7	11.1	11.3	10.7	33.3	15.4	62.5*
Dixie	5,100	22.9	21.4	31.3	8.6	7.7	13.8	17.1	10.9*	40.0*
Duval	512,600	19.5	18.2	23.7	8.4	7.8	10.4	21.1	17.9	29.3
Escambia	194,000	21.0	19.8	25.6	7.2	6.8	8.7	23.6	19.2	36.3
Flagler	5,200	16.9	9.7	29.5	10.2	9.7	11.1	34.1*	0.0*	53.6*
Franklin	7,300	17.4	16.0	22.5	13.6	13.5	13.8	23.6	22.0*	27.8*
Gadsden**	44,900	19.1	11.6	24.0	6.7	6.5	6.9	30.3	9.8	36.8
Gilchrist	3,400	17.4	15.7	30.0	8.8	9.0	7.5	33.9*	42.6*	0.0*
Glades	4,000	12.8	7.1	21.3	6.5	5.8	7.5	19.6*	0.0*	29.4*
Gulf	9,600	18.2	17.4	20.9	7.6	7.2	9.1	22.9	23.3	21.7*
Hamilton	8,100	21.9	20.0	24.1	11.7	11.6	11.9	50.8	11.4*	89.9*
Hardee	15,000	18.7	18.9	17.5	9.6	9.3	11.9	28.5	31.6	0.0*
Hendry	12,100	23.4	21.3	29.1	8.0	6.9	10.9	24.7	16.0	41.7*
Hernando	13,400	16.6	14.6	23.8	12.6	14.6	5.5	22.5	13.1	43.5*
Highlands	25,500	16.3	13.5	26.5	12.5	13.1	10.4	24.1	11.0	49.0
Hillsborough	452,900	17.8	16.6	25.1	9.8	9.7	10.4	25.1	21.6	39.4
Holmes	11,500	14.2	13.8	22.0	11.4	10.8	24.0	30.7	32.9	0.0*
Indian River	33,400	16.3	14.0	24.9	11.4	11.9	9.4	23.8	21.7	28.2
Jackson	36,500	15.5	14.7	17.4	9.4	9.1	10.1	19.4	16.2	25.6
Jefferson	9,500	19.9	13.9	23.9	10.8	13.7	8.9	21.2	18.9*	22.1
Lafayette	2,900	13.1	12.0	20.0	11.7	12.8	5.0	78.9	100.0*	0.0*
Lake	64,500	13.8	11.5	22.8	13.1	14.1	9.0	20.3	18.5	23.8
Lee	80,400	15.7	13.6	27.2	12.0	12.3	10.7	30.1	26.8	39.5
Leon**	90,000	17.4	16.7	19.1	5.9	4.9	8.1	16.6	12.4	25.3
Levy	12,700	16.3	12.8	24.1	12.0	12.3	11.5	33.8	26.5	42.6*
Liberty	3,000	17.7	19.2	10.0	12.0	13.2	6.0	18.9*	20.8*	0.0*
Madison	15,000	18.5	13.3	23.8	10.2	11.4	8.9	36.1	9.9	51.1
Manatee	82,000	12.6	10.4	25.3	15.6	16.8	8.8	16.4	12.3	26.3
Marion	65,000	17.5	15.0	23.0	10.5	10.4	10.7	21.1	10.5	36.2
Martin	23,600	14.9	12.8	24.1	12.0	11.8	12.7	25.6	16.3	47.2
Monroe	62,900	17.0	16.2	25.1	7.0	6.7	10.0	15.0	13.0	27.0
Nassau	19,500	17.7	16.5	21.7	8.4	7.2	12.2	28.9	16.3	60.0
Okaloosa	81,900	20.0	19.2	30.7	4.7	4.5	6.5	20.1	19.8	22.9
Okeechobee	9,600	23.4	23.1	25.3	10.0	8.9	16.0	31.1	21.4	78.9*
Orange	312,800	17.5	15.7	27.3	8.4	8.3	8.8	23.4	18.9	37.6
Osceola	21,600	14.5	13.6	21.7	14.9	15.0	14.2	19.2	11.5	57.7*
Palm Beach	298,500	16.0	13.1	26.3	11.2	11.7	9.4	26.6	17.7	42.5
Pasco	48,900	13.1	12.4	19.2	18.8	19.6	11.0	43.8	42.3	52.1*
Pinellas	445,200	10.9	9.3	26.2	17.8	18.6	10.0	24.6	20.0	40.5
Polk	239,500	17.1	15.8	23.0	9.2	9.3	8.7	23.7	19.0	38.3
Putnam	33,000	19.5	18.3	22.3	11.3	11.5	10.9	37.2	31.6	47.0
St. Johns	32,900	14.5	12.5	20.8	11.2	11.2	11.3	18.8	9.6	36.1
St. Lucie	49,500	19.0	14.3	28.2	10.2	10.3	10.0	39.3	23.4	55.2
Santa Rosa	34,500	24.6	24.1	32.3	7.0	6.7	11.4	17.7	19.3	0.0*
Sarasota	97,500	11.1	10.1	20.2	15.6	16.4	7.8	22.2	22.3	21.7
Seminole	72,900	19.4	17.6	26.7	7.4	6.5	11.0	19.1	12.7	35.7
Sumter	13,400	17.9	14.7	26.2	11.5	12.8	8.1	16.7	14.0	20.6*
Suwannee	17,200	17.4	15.6	22.1	9.9	9.5	10.9	16.7	10.3	28.8
Taylor	13,400	19.9	17.2	28.7	9.9	8.3	15.2	15.0	16.9	11.2*
Union**	6,800	12.1	11.8	12.6	7.4	8.2	5.3	24.4*	34.5*	0.0*
Volusia	166,100	13.6	11.5	25.4	13.8	14.3	10.7	24.4	20.9	33.2
Wakulla	5,700	18.4	16.8	22.4	8.6	8.8	8.2	19.0	14.9*	26.3*
Walton	16,000	11.4	10.4	17.4	10.3	10.0	12.2	43.7	42.0	50.0*
Washington	12,100	17.5	14.8	27.3	10.8	12.0	6.5	33.0	28.4	42.3*

*Based on less than 100 live births, which limits the significance of the rates.

**Large institutional population segment included in population base.

TABLE 59

MARRIAGES BY RACE, DIVORCES, AND ANNULMENTS, BY COUNTY, FLORIDA, 1968

COUNTY	Marriages			Divorces	Annulments
	Total	White	Nonwhite		
State	62,351	53,445	8,906	31,367	253
Alachua	910	724	186	335	2
Baker	95	87	8	86	1
Bay	690	598	92	426	3
Bradford	135	114	21	77	0
Brevard	2,159	1,965	194	1,200	12
Broward	5,358	4,550	808	2,320	5
Calhoun	59	51	8	56	0
Charlotte	215	201	14	115	0
Citrus	170	153	17	60	0
Clay	252	228	24	140	1
Collier	385	364	21	131	0
Columbia	294	233	61	136	1
Dade	12,328	10,650	1,678	6,035	59
De Soto	147	113	34	69	1
Dixie	61	49	12	30	0
Duval	4,506	3,656	850	2,908	13
Escambia	2,091	1,689	402	1,093	15
Flagler	70	50	20	124	2
Franklin	44	41	3	29	0
Gadsden	170	97	73	101	0
Gilchrist	51	46	5	17	0
Glades	34	27	7	10	0
Gulf	100	80	20	64	0
Hamilton	65	51	14	30	0
Hardee	196	179	17	270	3
Hendry	143	107	36	100	4
Hernando	183	160	23	104	0
Highlands	274	222	52	123	2
Hillsborough	4,972	4,364	608	2,416	22
Holmes	80	76	4	77	0
Indian River	393	333	60	177	3
Jackson	188	136	52	101	0
Jefferson	77	37	40	67	0
Lafayette	27	25	2	3	0
Lake	647	548	99	1,114	20
Lee	1,001	875	126	382	4
Leon	798	611	187	370	1
Levy	121	89	32	50	0
Liberty	16	15	1	16	0
Madison	100	77	23	54	0
Manatee	885	771	114	335	4
Marion	616	483	133	120	1
Martin	311	271	40	149	0
Monroe	568	512	56	284	2
Nassau	130	112	18	79	1
Okaloosa	664	622	42	476	3
Okeechobee	125	112	13	35	0
Orange	3,356	2,953	403	926	6
Osceola	317	270	47	131	0
Palm Beach	3,096	2,549	547	1,283	9
Pasco	567	527	40	184	0
Pinellas	4,350	3,980	370	2,088	22
Polk	2,381	2,015	366	1,247	10
Putnam	342	273	69	421	5
St. Johns	327	276	51	204	2
St. Lucie	489	349	140	248	2
Santa Rosa	276	262	14	106	2
Sarasota	1,173	1,085	88	532	3
Seminole	561	464	97	398	4
Sumter	147	117	30	162	3
Suwannee	159	128	31	72	0
Taylor	173	134	39	55	0
Union	63	54	9	32	0
Volusia	1,435	1,256	179	627	0
Wakulla	35	31	4	28	0
Walton	119	101	18	88	0
Washington	81	67	14	41	0

TABLE 60

VITAL STATISTICS SCOREBOARD BASED ON PROMPTNESS AND COMPLETENESS OF CERTIFICATES FILED, FLORIDA, 1968

COUNTY	Rank	Per Cent of Certificates Filed on Time		Per Cent of Complete Certificates		Per Cent of Monthly Reports Submitted on Time	Total Score (Maximum = 500)	Change From 1967 Total Score
		Births	Deaths*	Births	Deaths**			
State		94.5	97.3	99.8	99.5	94.9	486.0	+ 0.8
Citrus	1	100.0	100.0	100.0	100.0	100.0	500.0	+ 2.7
Jacksonville-Duval	1	100.0	100.0	100.0	100.0	100.0	500.0	+ 0.1
Baker	3	100.0	99.4	100.0	100.0	100.0	499.4	+ 2.4
Manatee	4	99.8	99.9	99.9	99.7	100.0	499.3	+ 1.4
Polk	4	99.8	99.9	99.9	99.7	100.0	499.3	+ 0.2
Hernando	6	100.0	99.5	100.0	99.5	100.0	499.0	— 0.3
Broward	7	99.1	100.0	99.9	99.5	100.0	498.5	+ 0.4
Alachua	8	99.5	99.4	99.9	99.6	100.0	498.4	+ 2.0
Orange	8	98.7	100.0	99.9	99.8	100.0	498.4	+ 0.6
St. Johns	10	100.0	99.7	99.5	99.0	100.0	498.2	— 0.3
Dade	11	98.7	100.0	99.9	99.4	100.0	498.0	+ 2.6
Escambia	11	99.8	99.8	100.0	98.4	100.0	498.0	— 1.0
Hardee	11	98.8	100.0	100.0	99.2	100.0	498.0	+ 12.0
Martin	14	99.3	100.0	99.7	98.5	100.0	497.5	— 0.4
Lee	15	98.4	99.9	99.3	99.4	100.0	497.0	+ 0.1
Seminole	16	99.7	100.0	98.5	98.3	100.0	496.5	— 1.1
Charlotte	17	97.5	99.3	99.5	99.8	100.0	496.1	+ 2.1
Hillsborough	18	97.3	98.5	100.0	99.3	100.0	495.1	+ 3.7
Brevard	19	95.3	99.9	99.9	99.4	100.0	494.5	— 1.9
Bay	20	98.6	95.4	99.9	99.8	100.0	493.7	— 1.3
Marion	21	98.3	96.3	99.7	99.3	100.0	493.6	+ 0.3
Okeechobee	22	96.1	98.7	99.4	98.7	100.0	492.9	+ 30.5
St. Lucie	23	99.7	93.2	99.5	99.8	100.0	492.2	+ 19.9
Glades	24	100.0	100.0	100.0	100.0	91.7	491.7	— 8.3
Lafayette	24	100.0	100.0	100.0	100.0	91.7	491.7	+ 66.7
Sarasota	26	99.3	99.9	100.0	99.9	91.7	490.8	+ 17.0
Madison	27	94.2	98.2	98.4	99.1	100.0	489.9	— 5.2
Washington	28	97.0	95.7	97.0	100.0	100.0	489.7	+ 2.9
Clay	29	92.5	97.5	99.7	99.5	100.0	489.2	— 3.1
Volusia	29	99.3	99.1	99.6	99.5	91.7	489.2	— 0.8
Franklin	31	97.4	93.1	100.0	97.2	100.0	487.7	+ 1.6
Bradford	32	99.5	98.4	99.5	98.4	91.7	487.5	— 10.2
Gulf	32	95.3	95.2	98.6	98.4	100.0	487.5	— 3.5
De Soto	34	89.6	98.8	99.1	99.3	100.0	486.8	+ 1.0
Putnam	35	96.4	92.7	97.9	99.4	100.0	486.4	— 1.7
Osceola	36	96.3	99.3	98.8	100.0	91.7	486.1	— 8.0
Palm Beach	37	86.7	98.2	99.9	99.9	100.0	484.7	— 7.9
Flagler	38	92.2	100.0	100.0	100.0	91.7	483.9	— 7.8
Gilchrist	39	100.0	83.3	100.0	100.0	100.0	483.3	— 7.6
Jefferson	40	99.5	99.0	100.0	100.0	83.3	481.8	— 5.4
Walton	40	96.5	86.7	99.3	99.3	100.0	481.8	— 3.5
Hendry	42	99.6	100.0	99.6	99.2	83.3	481.7	+ 3.3
Indian River	43	99.3	100.0	99.5	99.3	83.3	481.4	— 6.0
Nassau	44	85.0	97.9	99.0	99.3	100.0	481.2	— 5.8
Monroe	45	99.1	99.0	99.5	99.5	83.3	480.4	— 3.4
Calhoun	46	92.0	88.4	100.0	99.2	100.0	479.6	+ 1.5
Wakulla	47	100.0	90.0	100.0	97.5	91.7	479.2	+ 13.4
Holmes	48	96.6	91.6	94.8	100.0	91.7	474.7	+ 1.1
Leon	49	84.7	88.4	99.8	99.3	100.0	472.2	+ 5.2
Pinellas	50	77.3	91.2	99.8	99.8	100.0	468.1	— 14.1
Liberty	51	100.0	100.0	100.0	100.0	66.7	466.7	+ 8.8
Levy	52	83.3	82.8	100.0	100.0	100.0	466.1	— 9.1
Lake	53	79.3	87.2	98.8	99.5	100.0	464.8	— 2.4
Highlands	54	72.6	93.1	99.2	99.3	100.0	464.2	— 8.6
Suwannee	55	70.5	97.3	98.0	98.0	100.0	463.8	— 15.6
Sumter	56	82.8	87.3	90.6	98.2	100.0	458.9	— 1.7
Santa Rosa	57	87.1	94.7	99.9	98.5	75.0	455.2	— 24.5
Columbia	58	94.7	94.5	100.0	99.2	66.7	455.1	— 21.4
Hamilton	59	83.3	75.0	96.7	100.0	100.0	455.0	— 10.1
Jackson	60	73.1	82.7	98.9	99.1	100.0	453.8	+ 6.4
Collier	61	61.5	93.0	98.4	99.7	100.0	452.6	— 14.2
Taylor	62	67.6	91.6	95.8	99.1	83.3	437.4	— 18.5
Okaloosa	63	50.7	82.2	99.4	97.3	100.0	429.6	— 12.9
Gadsden	64	60.0	86.9	99.0	98.9	75.0	419.8	— 52.4
Union	65	75.0	75.8	100.0	100.0	58.3	409.1	— 18.8
Pasco	66	46.9	79.4	99.4	99.7	83.3	408.7	— 65.4
Dixie	67	100.0	92.9	0.0	100.0	91.7	384.6	— 72.7

*Includes all death certificates and stillbirth certificates.

**Includes all incomplete death and stillbirth certificates and unreturned cause-of-death queries.

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